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Effect of the Total Girl Wellness Program on Wellness Behaviors in Adolescent Females

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EFFECT OF THE *TOTAL GIRL WELLNESS PROGRAM* ON WELLNESS BEHAVIORS IN ADOLESCENT FEMALES

by

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Abstract

EFFECT OF THE TOTAL GIRL WELLNESS PRGORAM ON WELLNESS BEHAVIORS IN ADOLESCENT FEMALES

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Adolescent females perceive themselves to be healthy but research suggests this population engages in unhealthy and risky behaviors. Health habits established during youth transition into adulthood and may contribute to chronic diseases later in life. Guided by Bandura's Social Cognitive Theory (SCT), the purpose of this study was to test the effect of a comprehensive wellness intervention on overall wellness, physical fitness, and self-efficacy for health promoting behaviors in female adolescents. A multidisciplinary concept analysis of shame suggested components of shame can impact environment, personal factors, and behavior, the key concepts of SCT. An intervention based on SCT and titled *Total Girl Wellness Program* was developed. The 12-week program includes interactive modules that address wellness, obesity prevention, healthy relationships, and avoiding risky behaviors. An experimental design was used to test the effect of the *Total Girl Wellness Program* in a sample of 153 adolescent females enrolled in physical education. Independent sample t-tests revealed significant ($p < .01$) improvement in the scores of the essential-self wellness subscale and the health promotion self-efficacy subscale. Although physical fitness was not significantly improved, the intervention was well-received by participants and school personnel. Findings from this study suggest adolescent females can learn wellness skills that may impact future health behaviors and wellness.

Key Words: Wellness, physical fitness, self-efficacy, adolescent females, shame

Chapter One

Introduction

Wellness is a dynamic process requiring proactive behaviors to promote health (Hartwig & Myers, 2003). Wellness enhances quality of life through multiple abstract and concrete dimensions. The dimensions of wellness vary within the literature. Dimensions of wellness can include physical, emotional, spiritual, intellectual, social, and environmental domains. Consistent in the literature, is the perspective of wellness as a holistic combination of multiple factors (Myers & Sweeney, 2005) regardless of the specific definition used.

Since wellness is a process, it can be learned. Improving wellness skills makes practical sense because it provides a foundation for good health and vitality throughout the lifespan. Females maintain multiple roles during adulthood which cause both emotional and physical stress, thus a need for wellness education beginning with adolescent females exists. Investing resources into wellness education during adolescence is prudent; evidence demonstrated wellness habits developed during adolescence transition into adulthood (MacKay & Duran, 2007; Whitmore & Sweeney, 1992). Therefore, focusing on wellness skills during adolescence will reap multiple rewards both individually and collectively over time.

Wellness, defined as, "a state of being in which optimal health is achieved through physical and psychological functioning" (Hartwig & Myers, 2003, p. 57) has often been addressed through a single dimension. Wellness interventions that targeted specific wellness concepts such as drinking, smoking, pregnancy prevention, pregnancy, young mothers, obesity, physical fitness, depression, and anxiety were identified.

However, there did not appear to be an intervention designed to address levels of wellness comprehensively. Thus, the approach to female adolescent wellness appears to have been a "parts" approach to dealing with a "whole problem" (Scales, 1999, p. 113). Strategies to improve wellness must address the multiple aspects of wellness by targeting personal perceptions, changing individual behaviors, and creating a culture or environment that promotes and values wellness.

Bandura's (1986) Social Cognitive Theory, which addresses the interaction of personal factors, behavior, and environment, served as the foundation for this program of research focused on wellness among adolescent females. Social Cognitive Theory (SCT) explains human functioning as, " a model of triadic reciprocality in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (Bandura, 1986, p. 18). People are not driven by internal forces or external circumstances alone. Behavior is driven by the interaction of person, behavior, and environment (Bandura, 1997). Successful behavior changes do not occur solely from increasing knowledge. The components of SCT operate simultaneously to develop self-efficacy. Self-efficacy is "concerned with people's belief in their capabilities to produce given attainments" (Bandura, 2006, p. 307).

Social Cognitive Theory is powerful when working with groups because of the collective impact of individual self-efficacy coupled with the environmental component. When engaging group process, it is essential to provide information that demonstrates the need for behavior changes; however, changes must be viewed as acceptable by peers to become a group norm, thus creating a culture supportive of behavior change. Members of the group must also believe that they are capable and skilled at incorporating new

ways of behaving (Bandura, 2006; Stewart, DiClemente, and Ross, 1999). The SCT model (Appendix A) works well with female adolescents because it accommodates the rapid transitions of person and acknowledges the importance of peers and the social environment. The importance of peers and the social environment heavily influences the growth and development of adolescent females.

Literature Review

Multifaceted health care needs of adolescent females broadly include obesity prevention (Brownell et al., 2009), physical fitness (Flattum, Friend, Neumark-Sztainer, & Story, 2008; Harbaugh, Jordan-Welch, Bounds, Blom, & Fisher, 2007; Stice, Presnell, & Shaw, 2005), psychosocial issues (Frydenberg & Lewis, 2004), avoiding risky behaviors (Harrison, Beebe, & Park, 2001), and reproductive health (Chiaradonna, 2008;Commendador, 2007; Silverman, Raj & Clements, 2004). A problem in any of these areas has potential to quickly compound, especially in girls who lack social connectedness or cohesion with family and friends. Patterns of behaviors adopted during this time period have long-term consequences that directly affect health and quality of life (MacKay & Duran, 2007).

Wellness

The wellness movement began in the 1970s in an effort to de-emphasize the medical model of health which focused on sick, ill, or diseased individuals. Adults were typically the target population with little attention given to adolescents (Hartwig & Myers, 2003). Wellness principles have primarily been applied to physical wellness even though the intent was to create a holistic concept (Rayle, 2005). Wellness requires proactive behavior from individuals that result in an "integration of mind, body, and

spirit" (Hartwig & Myers, 2003, p. 57). Proactive behaviors include consumption of foods that contribute to a healthy weight, physical activity, and avoidance of risky behaviors. Older research demonstrated relationships and behavior can be targeted through wellness interventions (Ansuini & Fiddler-Woite, 1996). Other studies showed that middle school wellness behaviors were impacted both positively and negatively by social influences. Another study demonstrated behavior problems were related to wellness deficits (Sussman, et al., 1995). One study indicated that adolescent females experienced more significant difficulties in mental health, sexual risks, general health, and dietary behaviors than males experienced (Steiner et. al., 1998) indicating a need for interventions designed with the specific needs of adolescent females. No recent studies of a comprehensive approach to wellness in adolescent females were identified.

Obesity Prevention

The prevalence of childhood and adolescent obesity in the United States is epidemic (Bell, Rogers, & Deitz, 2011; Shaya, Flores, Gbarayor, & Wang, 2008; Harbaugh et al., 2007). In 1980, only 6% of adolescents' ages 12–17 years were obese. As of 2007-2008 the rates have tripled, the percentage of obese adolescents reached 19%. There were no significant statistical differences between males and females (Federal Interagency Forum of Child and Family Statistics, 2011, Shaya et al., 2008).

Multiple school-based obesity prevention programs have been implemented with mixed reviews in terms of effectiveness. Shaya et al., (2008) reviewed school-based obesity interventions with anthropometric measures in male and female students from age 7–19 years. Interventions included physical activity programs, education models with behavior modification strategies, or a combination of both. Of the 51 studies reviewed, 40

studies demonstrated positive significant results. Brownell et al. (2009) reported interventions implemented in the school environment have been more effective changing behaviors such as television viewing and soda consumption and less successful at changing body mass indices. Evidence suggested studies that focus on weight perception and self-efficacy in adolescents may be more effective at predicting which adolescents will participate in health promoting behaviors than studies that seek to increase self-awareness related to obesity status (Thunfors, Hanlon, Alexandra, Collins, & Bradley, 2011).

Research indicated obese adolescent females achieve poorer outcomes, when compared to their normal weight peers. Obese adolescent females were more likely to experience bullying from friends (McNeely & Blanchard, 2009; Stice, Presnell, & Shaw, 2005), less likely to date, more likely to become pregnant, more likely to drop out of school, and more likely to experience decreased income throughout their lifetime (Stice et al., 2005; Mellin, Neumark-Sztainer, Story, Ireland, & Resnick, 2002). Overweight girls aged 13–14 years are four times more likely to suffer from low self-esteem than non-obese girls (McNeely & Blanchard, 2009; Mellin et al., 2002) and have a 60% chance of developing a chronic complication caused by obesity (McNeely & Blanchard, 2009).

Physical activity.

The Centers for Disease Control and Prevention (CDC, 2011) recommends sixty minutes of daily physical activity for children ages 6–17 years and 150 minutes per week for adults 18 years and older. Evidence demonstrated many adolescents are not meeting this recommendation, but instead are spending the majority of their time in sedentary

activities such as school and media consumption (McNeely & Blanchard, 2009). Data from the health profile report (Mulye et al., 2009) indicated only 25% of high school females achieved the recommended amount of physical activity per day and 33% of high school females watched TV more than three hours a day. Physical activity decreased for females aged 18-24 years indicating only 19 % of females achieved the recommended amount of physical activity per day. Thus, females' activity decreases as they mature which increases the risk of obesity later in life. Enrollment in physical education declines between 8th and 11th grade (Beets & Pitetti, 2005).

Nutrition.

The environment for many adolescents tends to encourage the consumption of inexpensive and high caloric food. This includes the school environment. In 2006, 98% of high schools sold soda, 78% sold cookies, and 69% sold potato chips. Schools often allow parents to bring fast food meals to their children at lunch, thus defeating the efforts of cafeterias that do provide healthy meals (Brownell, et al., 2009). This problem is compounded for students who live in low-income areas. Often times the only source for food is the local convenience store which has limited nutritious options. Adolescents from low-income communities are also at risk for experiencing nutritional deficiencies, being overweight, or becoming obese (McNeely & Blanchard, 2009).

Adolescents are not consuming fruits and vegetables regularly. Self-efficacy for eating fruits and vegetables did not appear to be a problem, rather taste and availability discouraged consumption (Molaison, Connell, Stuff, Yadrick, & Bogle, 2005). Multiple research studies document school-based interventions related to consumption of fruits and vegetables (Bruening, Kubik, Kenyon, Davey & Story, 2010; Pearson, Atkin, Biddle,

& Gorely, 2010; Davis, Cullen, Watson, Konarik, & Radcliffe, 2009). Interventions that provided a comprehensive approach tended to have better results changing behavior than programs offering knowledge only. The long-term success of these programs is unknown.

Psychosocial Issues.

In Texas, girls who participate in physical education (PE) are not usually involved in extracurricular activities such as cheerleading, band, drill team, or athletics since these activities are substituted for PE credits (Texas Education Association, 2011). These girls do not identify with a team and have an increased risk of being socially isolated. Van Daalen (2005) researched why girls' participation in PE was dwindling. The results indicated the current model of PE was a "source of constant shaming regarding their athletic ability and eventually themselves" (p. 115). The PE model emphasized forced competition, degrading evaluation, sexuality, and size-related harassment by peers and instructors. As competition and evaluations increased, self-esteem decreased. Exploring new models of PE was suggested.

In contrast, Tassitano et al. (2010) conducted a study analyzing whether participating in PE classes was associated with health-related behaviors among high school students. Results demonstrated students who attended at least two PE classes a week were 27% more likely to be physically active, 45% more likely to eat fruit on a daily basis, and 30% more likely to report less television viewing compared to students who did not attend PE. These findings suggested "enrollment in PE classes could play a role in promoting health-related behaviors among high school students" (p. 126).

Risky Behaviors.

Multiple school-based interventions have been aimed at preventing, delaying, or minimizing participation in risky behaviors. A systematic review of school-based marijuana and alcohol prevention programs examined the effectiveness of knowledge only versus comprehensive type prevention programs in adolescents between the ages of 10 -15 years. The most effective primary prevention programs not only included anti-drug information but also incorporated refusal skills, self-management skills, and social-skills training. Project ALERT is a specific primary prevention anti-drug program implemented in middle schools (Lemstra et al., 2010). The intervention demonstrated successful reduction of cigarette and marijuana initiation, current and regular use of cigarettes, and alcohol misuse. This evidence supports school-based programs as an important avenue of primary prevention in adolescents. It appears school-based substance abuse prevention programs tend to target both genders and younger adolescents. There is a gap in school-based prevention substance abuse programs targeting females in high school.

Primary prevention programs focused on pregnancy were also reviewed. Interventions focus on reducing the risk of sexual behavior through abstinence or improved contraceptive use; postponing sexual involvement through increased knowledge and skill; improving decision making skills related to sexual behavior and contraceptive use; and sexually transmitted infection prevention by building knowledge and skill. The effectiveness of primary prevention pregnancy programs are determined by measuring changes in knowledge, skills, and behaviors (Franklin & Corcoran, 2000).

Review of the school-based prevention literature for risky behaviors indicated important constructs in school-based interventions including normative beliefs, information related to harm, and comprehensive life skills such as social-problem solving, decision-making, assertiveness, and refusal skills (Stephens et al., 2009). Missing from the school-based prevention program literature was evidence related to distracted driving, online safety, and self-efficacy for adolescent health promoting behaviors. Prevention programs primary focus was on obesity prevention through physical activity or nutrition.

Program of Research

Adolescents (98%) and young adults (96%) reported their overall health status as being excellent, very good, or good (Mulye, et al., 2009). However, the literature review does not support this perception. Virtually all adolescents reported a minimum standard of good health even though it is likely they are not, this is an optimal time to capitalize on the overall positive perception of health in adolescents and provide comprehensive wellness instruction. Available evidence also demonstrated adult mortality and morbidity could be reduced by improving health behaviors in adolescents (Steiner et al., 1998). Thus, this program of research focused on development and testing an intervention aimed at improving wellness in adolescent females.

Shame: A Concept Analysis

Based on the suggestion by Van Daalen (2005) that adolescents enrolled in PE may experience increased shame and guided by Bandura's (1986) SCT concept of personal factors, a concept analysis of shame was conducted. A multidisciplinary approach was used and results of the concept analysis are reported in manuscript one,

titled *Shame: A Multidisciplinary Concept Analysis.* Environmental influences spur shame inducing experiences resulting in positive and negative outcomes. Evidence demonstrated feelings of shame were identified as important to the development of prosocial behaviors (Guy, 2003) as well as a precursor to multiple psychosocial health problems and physical issues for females when shame becomes chronic (Frydenburg & Lewis, 2004). Chronic shame experiences can begin during youth. These experiences initiate destructive health patterns that transition into adulthood and manifest as serious health issues later in life.

Development of *Total Girl Wellness Program*

Components of shame impact all three dimensions in SCT. Among personal factors, behavior, and environment, the health care provider has some control over environment. The next step in the program of research focused on developing a wellness intervention within a non-shame inducing environment. Description of the development of the *Total Girl Wellness Program* is reported in manuscript two, titled *Total Girl: An Evidence-based Wellness Program for Adolescent Females.* The 12 week program, based on SCT (Bandura, 1986), included interventions aimed at improving nutrition, increasing physical activity, and decreasing risky behaviors.

Testing *Total Girl Wellness Program* in a Randomized Controlled Trial

Following development of the *Total Girl Wellness Program*, a study was designed and initiated to test the intervention in a randomized controlled trial. Two schools were approached and agreed to participate in the study. Letters of support are found in Appendix B. During the study design phase, no instrument to measure self-efficacy for wellness among adolescents was identified. Thus, permission was obtained from the

developer of the Self-Rated Abilities for Health Practices (SRAHP), which was created for use with adults with chronic illness, to modify it for use with adolescents (Appendix C). A pilot study of the modified instrument, Self-Rated Abilities for Health Practices – Adolescent version (SHAHP-A), was conducted with 231 adolescents age 14-19. Exploratory factor analysis suggested a four factor solution, similar to the original SRAHP (Appendix D). The instrument was determined to be acceptable for use in the randomized controlled trial.

Following dissertation committee and The University of Texas at Tyler Institutional Review Board approval (Appendix E), the study was initiated. The principal investigator met with students enrolled in PE classes at the participating schools. An informed consent/assent (Appendix F) was sent home with each student interested in participating in the program. For those students assenting and who had parental consent, baseline measures were obtained. Instruments included a Demographic Data Sheet (Appendix G), the Self-Rated Abilities for Health Practices – Adolescent version (Appendix H), a measure of wellness (Appendix I), and assessment of physical abilities (Appendix J).

Results of this study, titled *Effect of a the Total Girl Wellness Program on Wellness Behaviors in Adolescent Females*, are reported in manuscript three in Chapter 4. The manuscript is prepared for submission to *The Journal of School Health*, using the journal guidelines (Appendix K).

Summary

This program of research is focused on adolescent female wellness. Shame, a potential personal factor influencing wellness was explored. *Total Girl Wellness*

Program, an intervention based on SCT and existing literature, was developed. A research study was then conducted to explore the effect of a comprehensive wellness intervention on overall wellness, physical fitness, and self-efficacy for health promoting behaviors in adolescent females enrolled in physical education (PE) classes in high school. The results of this study add to the body of wellness literature related to adolescent females and provide implications for education, practice, and research.

Chapter Two

Shame: A Multidisciplinary Concept Analysis

Abstract

Aim. To clarify the concept of shame by examining how it is discussed in theoretical and research literature.

Background. Shame is ubiquitous, yet it often goes unrecognized. Chronic shame causes physical, social, and emotional dysfunction resulting in potentially serious consequences. Shame occurs from unrealistic comparisons between self and others causing diminished self-worth (Crowe, 2004). Behaviors regarded as shameful depend on the dominant culture's values at a particular moment in history and change over time.

Method. Walker and Avant's (2005) methodology guided the concept analysis.

Discussion. A multidisciplinary search revealed shame is recognized as a painful emotional experience, but expression of shame has unique "culture-specific manifestations" (Shweder, 2003). Community characteristics influence how an individual perceives and expresses shame (Shweder, 2003). For health care providers this means attaching global generality to shame can be misleading. Lack of awareness of this concept perpetuates culturally incompetent care.

Conclusion. The potential negative outcomes of shame should drive nursing actions by: (a) highlighting the need for assessment strategies which identify and intervene in negative shame cycles (b) avoiding perpetrating shame, and (c) encouraging self-reflection within health care providers.

Keywords: shame, concept analysis, shame interventions

Shame: A Multidisciplinary Concept Analysis

Shame is a ubiquitous emotion, yet it often goes unrecognized and unacknowledged. Crowe (2004) reported chronic shame causes physical, social, and emotional dysfunctions resulting in potentially serious consequences. Shame occurs from negatively assessing differences between self and others causing diminished self-worth. Behaviors regarded as shameful are dependent on the dominant culture's values at a particular moment in history and what is considered shameful changes over time. For example, Western culture currently values self-help, self-discipline, self-respect, self-control, and self-reliance. These values arise from capitalistic and religious beliefs. Other mainstream values marketed to consumers include thinness, cleanliness, athleticism, wealth, popularity and youth. These values generate shame in individuals or groups who perceive themselves as powerless to achieve the ideal (Crowe, 2004).

The inability to participate in the dominant culture tends to ostracize or stigmatize those differing from the majority (Crowe, 2004). Individuals or groups become marginalized from mainstream society when they are continually separated from social networks and lack social cohesion. A social dichotomy is constructed between normal and abnormal, insiders and outsiders, or those with power and those that are powerless Those that are powerless become 'victims' of the social, economic, and political policies set in-motion by the majority. Shame is internalized by the outsider group and eventually the toxicity of chronic shame compounds to threaten the health of individuals or vulnerable populations (Scrambler, 2009).

A literature review revealed shame and guilt are often linked; this association occurs without clarification, particularly in nursing literature. The damaging aspects of shame were recognized consistently, but there does not appear to be evidence-based interventions for health care providers to implement in practice. Research findings demonstrated the key role shame plays in multiple self-destructive behaviors, but it appears researchers have not considered the role shame plays in inhibiting or promoting health and wellness. The purpose of this multidisciplinary concept analysis is to clarify the meaning of shame by examining theoretical and research literature. Clarification will enhance communication among disciplines and potentially guide researchers in selecting and developing instruments that measure shame.

A modified version of Walker and Avant's (2005) eight step method provided the framework for this analysis. This version is modified because case examples were eliminated to improve clarity. Methodology included (a) selecting a concept, (b) determining the purpose of an analysis, (c) identifying all uses of the concept, (d) determining the defining attributes, (e) identifying a model case, (f) identifying a borderline case (e) identifying a related case, (f) identifying a contrary case, (g) antecedents and consequences, and (h) defining empirical referents. A comprehensive literature review occurred to establish the historical context of shame. Literature reviews encompassed politics, religion, sociology, psychiatry, psychology, and nursing databases. Shame was recognized as a painful emotion in the aforementioned disciplines, but the purpose, origination, and application of shame varies.

Background

The historical root of the word shame comes from different cultures, but the meaning and implications are similar. Starting with ancient Greece guilt and shame were considered one concept. The Greek word distinguished between shame as an emotion and shame as an ethical trait. The root word of shame in Greek is *aidos* which refers to genitalia or "private parts" (Bond, 2009, p. 133). The Greek culture further described shame as "being seen inappropriately" (Bond, 2009, p. 133). A different root word for shame originated from the Indo-German word kam/kem which means to *cover* oneself (Bond, 2009). Lastly, originating from the Indo-European culture are the root words skam and skem which produces two words – skin and hide (Crow, 2004). The meanings are similar; shame relates to hiding oneself.

A review of political literature indicated shame influences societies. According to Guttman (2003) societies as a whole are loosely divided into "those governed by shame and those governed by guilt" (p. 38). Guilt-dominant virtues include tolerance, moderation, and charity. These virtues shape the policies of education, legislation, and foreign relations. In contrast, shame-dominant societies tend to be, "constantly vigilant toward aggressions of others against their sense of honor" (p. 38). The driving motivator is not to appear weak as an individual or a country. This tends to escalate violence and has been associated with ruthlessness. No society is purely guilt or shame dominant.

A search of sociology literature revealed shame experiences are manifested differently depending on culture. For instance, the trend in Western societies over the last 200 years has been to ignore shame (Guy, 2003). There is a general belief that American culture is better off without shame, and thus the idea and reality of shame continues to be

suppressed (Guy, 2004). Shame has been considered a precursor to guilt and not morally equivalent. Guilt responds to inner consciousness whereas shame generates from external judgments from others. Research first demonstrated the consequences of shame in adults during the 1970s and found adults described shame as feeling utterly worthless (Konstan, 2003). Up until that point experts had only linked shame to toilet training during childhood.

Another example of cultural influences relates to the society's belief system. Anglo-Saxon Nordic cultural values are based on the belief that there is one, absolute God to whom individuals will account for their actions. This monotheistic approach emphasizes individual responsibility and sets the standard for guilt reactions. Cultures that worship multiple gods do not have this collective standard and therefore remain accountable to each other. That is why the driving motivator in countries like Japan is shame – no individual or family wants to look too different from their peers. This is referred to as 'losing face' in the Japanese culture (Inque & Armitage, 2006; Velayutham & Perera, 2004).

A literature review in religion added another dimension. Shame related to perception of self in comparison to God. Shame provided pro-social benefits, but the potential for misusing shame existed also. Zaleski (2009) described shame as "mercurial and elusive" (p. 35) and as a social phenomenon "triggered by the awareness of being caught out or appearing wrong in the sight of real or imagined others". Zaleski (2009) suggested that shame never occurred when a person is alone. This idea seems to be contradicted by the literature in other disciplines.

The majority of shame research occurred in psychiatry and psychology. Research studies focused primarily on the role shame plays in self-destructive behaviors such as eating disorders, depression, self-mutilation, suicide, addiction (Van Vilet, 2008), and violence (Felblinger, 2008; Inque & Armitage, 2006; Clements, 1997). However, a positive association between shame and self-regulation emerged. According to Hooge, Breugelmans, and Zeelenberg (2008), "shame is one the most intense self-conscious emotions, playing a central role in development, pathology, and self-regulation" (p. 940). These findings indicated that shame acted as a commitment device. In this capacity experiencing shame provided a positive outcome. This was a unique study because it focused on the functional side of shame.

In nursing literature, shame appeared as 'guilt and shame' as if it were one concept. No research studies were found related to shame, but one concept analysis (McFall & Johnson, 2009) emerged. The defining attributes according to McFall & Johnson (2009) included physical expressions of overt shame, sense of worthlessness, low-self-esteem, and alienation. The results of this current concept analysis found the defining attributes were covering and negative self-evaluation. The different findings may be due to the multidisciplinary aspect of the current analysis and present an opportunity for dialogue.

In summary, shame has a culture-specific manifestation (Shweder, 2003). For health care providers this means attaching global generality to shame can be misleading. Lack of awareness of this concept perpetuates culturally incompetent care. Shame concepts are individual and dependent upon community characteristics (Shweder, 2003).

Identify All Uses

Merriam-Webster Online Dictionary (2010) defined shame as: 1) a painful emotion caused by guilt, shortcoming, or impropriety, 2) the susceptibility to such an emotion (have you no *shame*?), 3) a condition of humiliating disgrace or disrepute, 4) something that brings censure or reproach or something to be regretted (it's a *shame* you can't go). Synonyms for shame included: contempt, degradation, derision, embarrassment, humiliation, mortification, remorse, self-disgust, self-reproach, and stigma. Antonyms were honor, pride, respect (Shame, 2010, para. 4) and barefacedness (Fallows, 1886). This unusual word provides a striking illustration of shame –shame covers like a mask. A verse from Psalm 34:5 supports this illustration, "Those that look to him are radiant; their faces are never *covered* with shame" (New International Version). Klaassen (2001) described the core feeling of shame as distress and feeling "no good or as not good enough" (p 175). Across disciplines, shame includes an element of emotional pain.

Defining Attributes

To clearly define the attributes of shame, it is necessary to discuss what shame is not - shame is not guilt. These terms are used interchangeably, but they are distinctively different. Shame destroys. In contrast, guilt occurs after "evaluation of a behavior or action that damages a relationship or thing" (Hooge et al., 2008, p. 941). Guilt encourages amends; guilt restores. Guilt and shame are important to society for their pro-social benefits but both have the potential to become pathological.

Shame is expressed either overtly or covertly. Physical symptoms of overt shame include blushing, lowering of the eyes, hiding the face, stooping shoulders, and a lowered

heart rate. This physical expression is noticeable and is often recognized as embarrassment or shyness. Covert (repressed) shame refers to a chronic unresolved issue. A person experiencing covert shame may have been suffering for so long the original emotional pain is no longer recognized. Instead, the person may feel a general sense of unworthiness as well as display shame-driven behaviors. Common shame-driven behaviors include: (a) attacking others in an attempt to feel better about self, (b) pursuing perfection and power to feel more valuable, (c) shifting blame to others to avoid looking at self, (d) being overly nice to compensate for feelings of unworthiness, and lastly (e) isolating self from the real world (Felblinger, 2008). These behaviors damage relationships and increase feelings of shame within the individual.

The blending of characteristics causes difficulty distinguishing the defining attributes of shame. However two absolute defining attributes identified included *covering* and *negative self-evaluation* (Table 1). Shame is a negative self-evaluation in which the person perceives self as defective. A negative self-evaluation sounds like, “I am a mistake” as opposed to “I made a mistake”. This difference is subtle but has vast implications. Consistently thinking “I am a mistake” leads to a pervasive sense of worthlessness and alienation. The person seeks some type of covering strategy to disconnect from the environment. Covering behaviors are unique to individuals.

Table 1. *Antecedents, Defining Attributes, and Consequences of Shame*

Antecedents	Defining Attributes	Consequences
Self-awareness • Ability to distinguish self from others • Compares self to others *Social Context* • Begins in home • Progresses to societal institutions *Cultural Identity* • Dominant culture values • Culture specific techniques	*Covering* • Behaviors unique to individual • Used to hide from self and others • Creates barrier *Negative self-evaluation* • I am a mistake • Alienation • Worthlessness	*Individual* • Other-attacks • Avoidance • Self-attack • Withdrawal *Society* • Violence • Stigma

Model Case

A 70 year old woman prided herself on her physical health. She maintained an appropriate weight, exercised daily, and received yearly physicals. Her physician provided excellent care and recommended appropriate screenings. Every visit the woman received a kit to check for blood in her stool. The woman graciously accepted the supplies without comment however; she promptly threw the kit away on her way home.

This scenario went on until a health condition could no longer be ignored. In actuality, the woman had been experiencing extensive rectal bleeding for several years. She did not discuss this issue with her family or her physician until she awoke in a pool of blood. This incident forced her to see her physician who discovered she had a massive rectal tumor and required immediate surgery. When asked why she did not discuss this with her doctor she dropped her head, looked away, stooped her shoulders, and simply

said, “In my day, we were taught not to discuss *that area*. Modesty was expected. I could not discuss my bottom with him; much less show it to him”.

This is a model case because covering and negative self-evaluation occurred. The woman used multiple covering techniques such as nondisclosure, lying, and denial. In addition, she displayed classic physical symptoms of overt shame including dropping her head, averting eye contact, and stooping her shoulders when forced to discuss the tumor. She delayed seeking medical assistance because “that area” was so offensive to her she deemed herself to be defective.

Borderline Case

A nurse made a medication error at work. She immediately went to the supply closet to gather her senses. She told herself that she was not bad, just human. She found her supervisor and relayed her mistake with downcast eyes, stammering, and blushing. She vowed not to make that mistake again and continued with a successful day at work.

This is a borderline case because the nurse immediately took *cover* in the closet to avoid further interactions and to diminish confusion. She found her supervisor and showed symptoms of overt shame while reporting the incident, but no *negative self-evaluation* occurred. She learned from the experience and successfully performed the rest of the day.

Related Case

The driver of a newly purchased, defective car crashed and damaged someone’s property. The driver found the property owner and wanted to make amends (Hammel, 2002).

This case is related because the emotions of shame and guilt originate from similar places. In this case the driver recognized his actions were the result of an accident and not the result of something inherently wrong with him. He accurately distinguished he was not defective but felt *guilt* for the action which resulted in destruction of property. He took appropriate actions to *amend* the situation when he could have withdrawn.

Contrary Case

A small aircraft collided into an office building. Panic and chaos ensued as the building burst into flames. Occupants were banging on windows desperate to escape. One bystander quickly retrieved his ladder truck and began to rescue people without regard for his safety before official help arrived. This is contrary to shame because this individual evaluated his abilities and determined that he had specific tools that could save lives. He showed *honor* by risking his life to save others. He earned *respect* from citizens for the courage he demonstrated. This is clearly the opposite of shame.

Antecedents of Shame

A multidisciplinary review of the literature revealed the antecedents of shame were: self-awareness, social context, and cultural identity (Table 1). In order for shame to be experienced an individual must be self-aware enough to distinguish self from others. Self-awareness allows reflection which may result in negative self-evaluation (Klassen, 2001). Social context connects shame and individual experiences – from interactions with individuals or to society as a whole (Sidoli, 1988). It begins in the home environment with parents and siblings and progresses to societal institutions as a child's world expands. Cultural identity refers to the impact the dominant cultural values have on

individuals. For example, shame and guilt techniques are used primarily to control behavior; these behaviors are transmitted unconsciously by parents through culture specific techniques (Sidoli, 1988).

Parents also transmit the concepts of natural and moral shame. Natural shame occurs when one is dissatisfied over personal characteristics for which there is no control. Moral shame occurs when it is associated with a self-induced standard of ideals that an individual fails to meet (Klaassen, 2001). Natural shame and moral shame are culturally related. For example, in the United States the standard of beauty for females is often described as '*Barbie doll'*. An adolescent female may suffer natural shame when she differs vastly from the Barbie-doll standard. She may feel moral shame when she evaluates herself against the cultural ideal.

Empirical Referents

Empirical referents demonstrate the occurrence of a concept by defining categories or classes that indicate its presence (Walker & Avant, 2005). Research has demonstrated shame's role in self-destructive behaviors, but progress in shame assessment has lagged behind. Multiple tools exist yet according to Rizvi (2010) assessing shame is difficult to measure because

- Individuals may not be forthcoming about shame experiences
- Participants may create a social desirability bias
- Interviewers or participants must be able to distinguish shame from other constructs
- Existing measures do not adequately distinguish shame from similar constructs (guilt, embarrassment, self-esteem etc)

Instruments are generally divided into trait-based or state-based categories. Trait-based instruments measure shame proneness and state-based instruments measure current level and intensity of shame. There are far more trait-based instruments than state-based instruments.

Due to variability in content it is hard to generalize and compare findings across constructs. The obfuscated constructs create questions in reliability and validity results also. The Shame Inventory (Rizvi, 2010) addresses global feelings of shame experienced by an individual and addresses shame related to specific life events. This instrument fills a gap in tool development by including both trait and state-based assessments. The preliminary findings demonstrated promise but further research is needed to improve the psychometric properties.

The antecedents identified in this analysis (self-awareness, social context, and cultural identity) would be interesting concepts to pursue for instrument development. These concepts would move the investigation beyond an individual and past an antecedent event. Perhaps the identified antecedents would help to create cultural-specific measures. Communication among disciplines should continue regarding instrument development.

Individual Consequences

Shame consequences depend on an individual's past experience, but there are predictable outcomes. Responses to shame tend to involve other-attack, avoidance, self-attack, and withdrawal (Table 1). Other-attacks occur when a person lashes out to overcome feelings of shame related to lack of strength, knowledge, or skill. The focus is outward toward others. This is part of what happens in domestic violence. The

perpetrator attacks the victim after feeling threatened. Avoidance occurs when a person feels permanently impaired with a character defect and internalizes shame. There is a tendency to overcompensate in other areas with the goal of drawing attention away from the weakness. The underlying issue is not resolved and problems may resurface in the form of delusions, narcissism, and sociopathy (Klaassen, 2001).

Self-attacks occur when the focus turns inward. Evidence of self-attacks include making frequent self-depreciating remarks and sacrificing ideals to bond with others. To avoid confronting the cause of shame a person does anything to stay connected with people. Self-attacks can turn masochistic (Klaassen, 2001).

Withdrawal is not an immediate solution to the feelings of shame; it does provide *cover* by hiding one from future shaming incidents. A withdrawal period ranges from casting down eyes (breaking gaze) to dysfunctional depression. Withdrawal is nonpathological if it successfully fosters a period of self-reflection that encourages a positive shift in perspective.

Society Consequences

An overwhelming sense of shame is the most powerful risk factor for the consequence of violence in a society (Clements, 1997). Use of violence is an attempt to "achieve justice, to right wrongs, and to restore pride and honor' (Clements, 1997, p. 999). Clements (1997) suggested shame is a vector of disease transmitted through family, institutions, economics, and policy. The epidemiological correlates to this disease of violence are the caste system, increasing economic disparity, race and age discrimination, and gender inequality (Clements, 1997). Violent reactions are maladaptive responses to

buried shame and humiliation. The intent is to destroy the source of shame, whether real or representative.

Another consequence for groups suffering chronic shame is they become stigmatized. The term stigma connotes deep shame and invisibility (Scambler, 2009). Stigmatizing occurs through social processes that exclude, reject, blame, or devalue an individual or group (Leeming & Boyle, 2004; Scambler, 2009). Adverse social judgments occur related to certain diseases or health problems with repercussions in social and health policy. Certain group features may become stigmatized which may also affect health.

Integration and Implications for Nursing

The initial concept analysis of shame by McFall and Johnson (2009) begins an interesting dialogue for nurses. The analysis presents the overt expression of shame as breaking eye contact, lowering head, and covering eyes, head or face. These physical expressions may be reflective of the dominant culture values rather than indicate shame universally. Feelings of worthlessness and low self-esteem were also considered defining attributes. These feelings do not exclusively indicate shame and can be associated with other disorders such as depression. While these emotions are linked to shame; they are not unique or specific enough to be a defining attribute of shame. The defining attributes offered in this analysis, *covering* and *negative self-evaluation*, allow for a broad perspective of shame.

Shame affects nursing practice because clients *cover* symptoms and details that may delay appropriate care. However, the results of a qualitative study on epiphanies (manuscript in process) demonstrated intense feelings of shame played a significant role

in the transforming epiphanic process. The possibility that shame can initiate a transformative process is intriguing and needs further study. Comprehensive nursing care requires being alert to the presence of nuanced behaviors such as fear, distrust, low self-esteem, and shame. If shame is identified, nurses should assist clients to make connections between pathological and healthy shame coping mechanisms. Other goals of nursing care include placing the shame experience in socio-cultural context, promoting acceptance of differences, and exploring alternative ways to manage shame. The goal of care is to assist clients in reframing their current perspective of self in relation to the standard being used for comparison (Bond, 2009).

Nursing leadership should promote policies and procedures aimed at minimizing the effects of shame and stigma. Areas to consider include access to care, health financing, research support, and supporting basic human rights. It is necessary for nursing leadership to create and deliver unambiguous messages for clear communication with the public. Clear communication is imperative to minimize fear and blame related to health problems. Nursing leadership can advocate and lobby for legislation that favors vulnerable populations (Weiss & Ramakrishna, 2006).

Nursing instructors should demonstrate a nurturing relationship with students in order to facilitate learning in the clinical setting and to enhance the process of professional socialization. Students who are connected to instructors demonstrate a positive influence on their clinical learning experiences (Bond, 2009). Unfortunately, nursing education may be filled with shaming experiences, particularly when it comes to clinical instruction. Instructor behaviors that increase fear and shame in students are: reprimanding, criticizing, emphasizing power-over students, comparing in a way that

excludes, speaking sternly, intensely interrogating, or failing to meet relational needs. An intense shame reaction causes difficulty in learning and inhibits the process of professional socialization. Nurse educators should strive for relationships that demonstrate connecting behaviors such as empathy, cooperation, warmth and openness, and appropriate humor. Consistently implementing behaviors that connect student and faculty will potentially eliminate fear-based instruction. The result of fear-based instruction is shame and humiliation (Bond, 2009). Shame has no place in nursing education.

Recommendations for future research include documenting the burden of stigma related to disease. It is important to examine the nature of stigma not just from an epidemiological perspective but from a culture-specific perspective. Quantitative and qualitative studies are necessary to understand this issue. The determinants of shame and stigma require quantitative research to measure how stigma contributes to suffering, delays help-seeking behaviors, and affects treatment drop-out effectiveness" (Weiss & Ramakrishna, 2006, p. 536). Effectively researching shame and stigma will require incorporating multiple groups and individuals. This includes individuals with disease, community residents without disease, health care workers, community leaders, families of stigmatized individuals, and caregivers.

Conclusion and Recommendations

The potential negative outcomes of shame should drive nursing actions by: (a) highlighting the need for assessment strategies which identify and intervene in negative shame cycles (b) avoiding perpetrating shame, and (c) encouraging self-reflection within health care providers. As nurses work with individuals and populations through difficult

circumstances it is perhaps helpful to remember that in the midst of turmoil there is an innate desire to remain acceptable (Shweder, 2003). The beauty of this statement is simple; it reminds nurses of their basic responsibility to accept others without judgment, and that includes accepting oneself.

The standard set for the nursing profession may "push a person to strive for unattainable ends" (Sidoli, 1988, p 132). Perfectionism and caring are character traits expected of nurses. Taken to the extreme these could be considered covering for negative feelings. It is worth a moment of introspection to determine where shame is *covered* within a nurse. Healing shame in nurses will ultimately heal others.

Shame is an important concept to study because the chronic pain associated with it damages people. "The dilemma of some inalterably impaired individual is that one cannot change" (Sidoli, 1988, p 132) nor tolerate being what one is. Nurses may not heal the inalterably impaired, but nurses can at least assist in developing tolerance. This mere act of acceptance provides a possible road to recovery.

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Chapter Three

Total Girl Wellness Program: An Evidence-based Wellness Program for Adolescent Females

Abstract

The *Total Girl Wellness Program* is a comprehensive, evidenced-based intervention designed to meet the wellness needs of adolescent females. Originally developed in response to a request from a concerned teacher, the intervention was refined over a three-year period and is grounded in Social Cognitive Theory. The goal of the program is to improve overall wellness, self-efficacy for health promoting behaviors, and physical fitness. The curriculum includes four interactive modules presented over a period of 8 – 12 weeks. Topics include obesity prevention, healthy relationships, cyber safety, distracted driving, alcohol and drugs, and sexual behavior. Health behaviors implemented at this stage of life have life-long implications for wellness. Health promotion efforts should focus on increasing self-efficacy for wellness behaviors, education about behaviors to adopt or eliminate, and influencing an environment which normalizes wellness habits in a nonjudgmental setting. Programs such as the *Total Girl Wellness Program* provide a theory based curriculum established on best evidence.

Total Girl Wellness Program: An Evidence-based Wellness Program for Adolescent Females

During a meeting among a high school principal, drill team director, and school nurse, the principal asked, "How much can the drill team director say about sex to the girls?" The drill team director had approached the principle voicing concern over the risky behaviors exhibited by the girls on her drill team. Unfortunately, this seemingly simple question did not have a simple answer. The nurse's response was "I will get back to you" because sexual behavior in adolescent females is more than the act of sex; a 'one-size fits all answer' did not exist. The *Total Girl Wellness Program*, described in this paper, emerged to address the complexity of this question.

The transition from girl to woman is difficult at best. The expectation is that this transition will occur without incident. The unfortunate truth is that many obstacles exist in the environment of adolescent females presenting risks that can derail bright futures. Adolescent females are considered a vulnerable population because of multi-faceted health care needs, complex growth and development processes, and classification as infrequent health seekers and status as medically underserved (Jaskiewicz, 2009). In spite of these disadvantages, research indicated adolescent females perceive their health as good or better (Mulye, et al., 2009). This represented an opportunity to provide wellness education tailored for the unique needs of this population.

Strategies to improve wellness, which is multifactorial (Myers & Sweeney, 2005), in adolescent females have not been well-established in research. Previous interventions for adolescents have examined delinquent female wellness (Van Daalen, 2005; Hartwig & Myers, 2003), diet and exercise (Flattum, Friend, & Nuemark-Sztainer, 2009),

psychosocial issues (Jaskiewicz, 2009; Steiner et al., 1998), substance abuse (Lemstra et al., 2010), and sexual behavior (Chiaradonna, 2008; Commendador, 2007; Schmiedl, 2004). Review of the school-based prevention literature for risky behaviors indicated important constructs in school-based interventions included normative beliefs, information related to harm, and comprehensive life skills such as social-problem solving, decision-making, assertiveness, and refusal skills (Stephens et al., 2009). Missing from the school-based prevention program literature was evidence related to distracted driving, online safety, and self-efficacy for adolescent health promoting behaviors. Prevention programs primary focus was on obesity prevention through physical activity or nutrition. School-based programs targeted one aspect of wellness such as obesity, bullying, tobacco use, abstinence, or pregnancy thus equating wellness with one behavior or outcome. The purpose of the *Total Girl Wellness Program* is to address multiple components of adolescent females' wellness needs through a theoretically grounded, comprehensive intervention based on the United States (2011) health goals described in *Healthy People 2020* and best evidence.

Best Evidence

Adolescent females are medically underserved. The majority of female adolescent clinic appointments are related to prenatal visits (Jaskiewicz, 2009; Silverman, Raj, & Clements, 2004). Adolescent females do not experience adequate preventive care, screenings, counseling, or effective communication with health care providers (Jaskiewicz, 2009). Current recommendations for well care include an annual preventive visit, a complete physical, health guidance, screening history, diagnostic tests, and immunizations. Medical care of this nature must be facilitated by a parent who is aware,

able, and willing to provide this opportunity for their child. An adolescent who does not have this advantage may suffer the consequences of poor health later in life. Chronic diseases such as heart disease, diabetes, and osteoporosis manifest in adulthood but the damage begins in childhood and adolescence. Health habits that are established in adolescence tend to transition into adulthood (Hallal, Victoria, Azevedo, & Wells, 2006).

An adolescent without access to preventive health care can, however, develop wellness habits. Wellness habits and attitudes are established during adolescence and develop across a continuum throughout the lifespan (Whitmore & Sweeny, 1992). The wellness movement began in the 1970s in an effort to de-emphasize the medical model of health that focused on individuals as sick, ill, or diseased. Wellness principles have primarily been applied to physical wellness even though the intent was to create a holistic concept (Rayle, 2005). Wellness has been described as life satisfaction or gratification in living (Kindig, 2007) or as "a state of being in which optimal health is achieved including positive physical and psychological functioning" (Hartwig & Myers, 2003, p. 57). Wellness requires proactive behavior from individuals that result in an "integration of mind, body, and spirit" (Hartwig & Myers, 2003, p. 57).

Wellness interventions were identified that targeted specific wellness concepts such as drinking, smoking, pregnancy prevention, pregnancy, young mothers, obesity, physical fitness, depression, and anxiety. There did not appear to be an intervention designed to address levels of wellness comprehensively. The approach to female adolescent wellness appeared to be a "parts" approach to dealing with a "whole problem" (Scales, 1999, p. 113). In addition, Pubmed was searched and 21 articles were retrieved using the Mesh heading adolescent. A search of Pubmed clinical trials was conducted and

107 citations related to adolescent females were identified. There were no clinical trials related to wellness and adolescent females.

Some older research existed that demonstrated relationships and behavior can be targeted through wellness interventions (Ansuini & Fiddler-Woite, 1996). Other studies showed that middle school wellness behaviors were impacted both positively and negatively by social influences. Another study demonstrated behavior problems were related to wellness deficits (Sussman, et al., 1995).

A gap in the literature indicated that there is not a comprehensive wellness intervention designed to facilitate wellness habits in adolescent females. The only article identified that was directly linked to female adolescent wellness related to the prevention and treatment of delinquent females *after* incarceration (Harwig & Myers, 2003). At this time wellness and efficacy research has primarily focused on adults; this presents an opportunity for nursing to add to the body of knowledge related to wellness and female adolescents.

Theoretical Framework

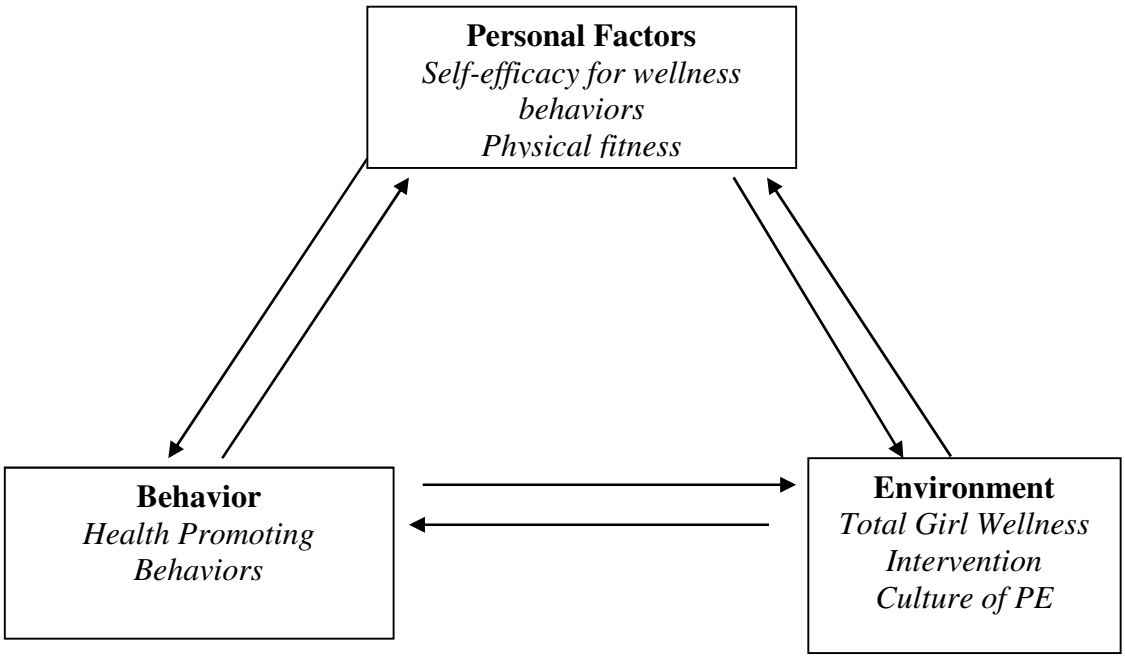
The *Total Girl Wellness Program* is embedded within Social Cognitive Theory (SCT), which explains human functioning as, " a model of triadic reciprocality in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (Bandura, 1986, p. 18). People are not driven by internal forces or external circumstances alone. Behavior is driven by the interaction of person, behavior, and environment (Bandura, 1997). Successful behavior changes do not occur solely from increasing knowledge. The components of SCT operate

simultaneously to develop self-efficacy. Self-efficacy is "concerned with people's belief in their capabilities to produce given attainments" (Bandura, 2006, p. 307).

SCT is powerful when working with groups because of collective self-efficacy and the environmental component. When working with groups, it is essential to provide information that demonstrates the need for behavior changes; however, changes must be viewed as acceptable by peers to become a group norm. Members of the group must believe that they are capable and skilled at incorporating new ways of behaving (Bandura, 2006; Stewart, DiClemente, and Ross, 1999). The SCT model (Figure 1) works well with female adolescents because it accommodates the rapid transitions of person and acknowledges the importance of peers and the social environment.

The concepts of SCT guided the development of *Total Girl* by focusing on the environment, personal factors, and behaviors of the girls participating in the program. The concept of environment is represented by the drill team culture and the *Total Girl* program. Attempts were made to challenge group norms related to unhealthy behaviors in a nonjudgmental setting. Personal factors included self-efficacy for wellness behaviors, physical fitness measurements, and perceived wellness. The concept of behavior within SCT is represented by specific measurable behaviors such as physical activity, smoking, and sexual activity. Health promoting behaviors included engaging in positive and avoidance of negative behaviors.

Figure 1. Concepts of *Total Girl Wellness Program* embedded in Social Cognitive Theory (adapted from Bandura, 1986)



Development of *Total Girl Wellness Program*

The initial version of the *Total Girl Wellness Program* was developed in 2006 to specifically meet the needs of the 35 adolescent females participating in the drill team at a medium sized high school in east Texas. The school had approximately 1200 students. The student body was comprised of students from Caucasian (40%), African-American (22%) and Hispanic (38%) backgrounds. The girls on the drill team were representative of the school's racial and ethnic makeup. The student body was primarily lower and middle socioeconomic status with many students living in single parent homes or living with relatives other than a parent.

As program development occurred, the specific circumstances of the students were considered. Permission from parent/ guardian to participate in the program was required. A parent/daughter meeting was held which explained the purpose and topics of the program. Parents were supportive for the nurse to have frank discussions with their daughters and all participants returned permission forms.

The initial program was 8 months long and comprised of 8 specific lessons. These included: nutrition, goals and dreams, computer safety, relationships, leadership, drugs and alcohol, sexuality, and pregnancy. Presentations were made by the nurse or guest speakers the nurse scheduled. Students were given resources and information during each session. The drill team director purchased notebooks for each girl to store the provided material, thus creating a wellness portfolio. In addition, students reported to the nurse's office once a month to have weight and body fat percentages monitored.

Upon completion of the program, students reported enjoying the experience and not wanting it to end. Parents appreciated the education their daughters' received. Some girls would talk about what they learned with their mothers, but other girls told parents, "Total Girl is private and just for us". The drill team director supported the program and felt the intervention addressed multiple needs and requested the program continue. During the first year of the program there were no reported pregnancies among the drill team girls. This was an exception to previous years. The perception of the school nurse was that, while effective, the program in its entirety addressed more than sexuality; the program actually addressed wellness. The program in the current form lacked the rigor and depth to support the concept of wellness as defined by a "state of being in which optimal health is achieved through physical and psychological functioning (Hartwig & Myers, 2003).

The decision was made to refine *Total Girl* as a wellness intervention targeting multiple components of health.

Refinement of the *Total Girl Wellness Program*

Total Girl Wellness Program was refined over a three year period. New interactive modules based on *Healthy People 2020* goals and objectives were developed and the program was firmly grounded in Social Cognitive Theory (Bandura, 1986), with specific strategies to improve self-efficacy among participants. An exercise physiologist was consulted to determine the best measures of physical fitness. The fitness expert also trained the school nurse on accurate measures of fitness. A graphic designer was consulted to assist with design of the notebooks and develop a logo to brand the program. The girls take pride and ownership of their notebooks. The logo was carefully designed to avoid stereotyping all girls as thin and adhering to a particular perception of beauty.

The refined program includes four education modules: wellness, obesity prevention, relationships, and avoiding risky behaviors. Modules 1-3 emphasizes behaviors to adopt and module 4 emphasizes behaviors to avoid. The information is presented weekly for a period of 8 weeks during regularly scheduled class times. Each girl is provided a *Total Girl* notebook containing the curriculum. Girls do not take notebooks home until the program completes. During Module 1 (one class period), the concept of wellness is introduced. Each participant writes wellness goals and other personal reflections in her notebook. These goals are revisited throughout the program. Baseline physical fitness assessments are collected and measures of self-efficacy and wellness are taken through online instruments.

Module 2 requires two class periods and focuses on obesity prevention. Nutrition is covered first. The lesson includes several interactive activities to demonstrate portion distortion and sugar intake. Body image is discussed first with an emphasis on developing a healthy body image rather than focusing on weight alone. The second piece of the obesity prevention module includes exercise. The students are taught walking for wellness and given a total body workout which incorporates the high school track and bleachers. In accordance with SCT, students are encouraged to develop workout partners in their class or family to help each other achieve success within their environment. The exercise design incorporates a familiar environment which in theory should reduce barriers for exercising.

During Module 3, participants explore the importance of healthy relationships. Over one class period, discussions focus on individual behaviors that build relationships or resolve conflicts. Relationship dynamics between family, peers, and other adults are used as examples. The link between healthy social connections and health is made. This module does not include dating relationships; dating is discussed in module 4.

Module 4 discusses risky behaviors to avoid over three class periods. Topics include online activities, substance use, and sex. For online safety, students view multiple web-sites which demonstrate potential negative outcomes of online behaviors. Discussions regarding the groups' current online behaviors are facilitated. Distracted driving involves anything that takes a driver's attention away from the road. Statistics regarding teen drivers is shared in an effort to personalize the dangers of distracted driving. Mobile phone use is discussed at length. Students develop strategies aimed at reducing individual phone use while driving. The last piece of the program is sexual

behavior. This piece is placed last in the program to allow the nurse time to develop trusting relationships with participants. To date, this has been the favorite module and session of participants. The students begin the session by watching a vaginal delivery. After watching the DVD, the discussion easily transitions into the potential outcomes of having sex. Sexually transmitted infections and birth control is discussed while playing a group game based on myth or facts. This session ends encouraging the girls to focus on their own goals and dreams while in this current stage of growth and development. At the end of Module 4 the girls are once again assessed for physical fitness, self-efficacy, and overall wellness.

The refined program was implemented with girls enrolled in physical education (PE) classes at two medium-sized high schools in east Texas. The school in which the program was piloted again participated. The drill team director, who also taught physical education classes, had moved to another school in the region and observed the needs of the girls in physical education were even greater than the girls on her drill team. In response to the drill team director's request to have the *Total Girl* program implemented at the new school, the project was expanded to include both high schools. Similar to the original school, the second school was medium sized (n = 920), of diverse racial and ethnic backgrounds (43% Caucasian, 22% African-American, 30% Hispanic), and included students from primarily middle and lower socio-economic backgrounds. Prior to implementing the program in the PE class, parents/ guardians were notified of the program content and gave permission for their daughters to participate.

The author was present for all participant interactions to develop relationships with the girls. A positive rapport with the students is necessary based on the principles of

SCT. The relationship influences the way in which the information is received. The sensitive nature of the topics required a trusting relationship on both sides. Incentives to return assent/consent forms included drawings for prizes such as gift certificates to the local mall. Each participant received a gift bag filled with feminine hygiene products at the completion of the program.

Lessons Learned

The Total Girl Wellness Program fills a gap in wellness education and provides a solid foundation for future health in adolescent females. Refinement and evaluation of the curriculum is ongoing, but initial results are encouraging. The length of the program provided adequate time for presentation of content but was not long enough to observe much change in physical fitness or perceived wellness. Future programs will be conducted over a longer period of time with fewer sessions per month, thus enabling students to experience success in meeting their personal wellness goals. Self-efficacy did improve over the course of the program, which suggests the adolescents are more confident in their ability to carry out their wellness goals. Use of the computer to assess wellness and self-efficacy was problematic. Access to computer labs and inadequate number of computers hindered collection of assessments. Future programs will use paper-pencil surveys. The gym, while ideal for some of the activities incorporated into the program, was not an ideal setting for presentation of content. Future programs will be conducted in a smaller, more intimate setting to provide increased comfort for participants and to establish a more welcoming environment.

Implications for School Nursing

The adolescent female is at a critical point in development. Health behaviors implemented at this stage of life have life-long implications for wellness. Students at higher risk include those students who are not members of organizations, such as sports, music, theater, and drill team, which establish an environment that is supportive and builds relationships. School nurses should be aware of the curriculum and environment of PE classes. If the environment is not conducive to positive growth consider partnering with the PE department to make appropriate changes and implement a wellness plan. Programs such as the *Total Girl Wellness Program* provide a theory based curriculum established on best evidence.

Nurses should consider SCT as a theory for clinical practice in the school setting. Nurses have direct influences on the person, behavior, and environment. Health promotion efforts should focus on increasing self-efficacy for wellness behaviors, education about behaviors to adopt or eliminate, and influencing an environment which normalizes wellness habits in a nonjudgmental setting.

School nurses will also want to build relationships to support implementation of wellness programs through active membership in their School health Advisory Council. Parents should be recruited to partner with the school nurse in implementation of the wellness program. Activities to be done at home and within the family unit can be developed. Promoting wellness in the sensitive adolescent population will pay dividends long after the students graduate.

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Chapter Four

EFFECT OF THE *TOTAL GIRL WELLNESS PROGRAM* ON WELLNESS BEHAVIORS IN ADOLESCENT FEMALES

Abstract

Adolescent females perceive themselves to be healthy but research suggests this population engages in unhealthy and risky behaviors. Health habits established during youth transition into adulthood and may contribute to chronic diseases later in life. Guided by Bandura's Social Cognitive Theory, the purpose of this randomized controlled trial was to test the effect of a comprehensive wellness intervention on overall wellness, physical fitness, and self-efficacy for health promoting behaviors in adolescent females, ages 14-19, enrolled in physical education (PE) classes in grades 9-12. The intervention, titled *Total Girl Wellness Program*, was administered in an experimental pre-test, post-test, two group design in rural east Texas. Participants (n= 153) were randomly assigned to a 12-week intervention or control group. Independent t-tests were non-significant for overall wellness and physical fitness. The wellness essential-self subscale score was significantly higher in the intervention group (t [64, 36] = 2.67*;* p <.01; d = .84). Self-efficacy Health Promotion subscale scores for the intervention group were also significantly higher (t [20,28] = 2.60; p =.01; d = .735) The *Total Girl Wellness Program* shows promise as a comprehensive wellness intervention for adolescents but needs further testing with larger samples and over longer time periods.

Introduction

Adolescents perceive themselves to be in good health, but evidence demonstrates a contrasting reality. Adolescents often take risks that cause injury or premature death. Examples of public and social health risks include: homicide, suicide, motor vehicle crashes, substance use and abuse, smoking, sexually transmitted diseases, and teen pregnancies (United States Department of Health and Human Services, 2011, paragraph 4). In addition, health habits are established during adolescence; the outcomes of poor habits emerge during adulthood as chronic diseases. Examples of unhealthy behaviors include consuming high fat diets low in the fiber and vitamins, and forgoing an active lifestyle. Sedentary activities such as extended television viewing, computer gaming and school is how adolescents spend a majority of their time (McNeely & Blanchard, 2009).

Problems affect both genders but females are vulnerable to specific issues (Jaskiewicz, 2009; Mulye, et al., 2009). For example, a national health profile of adolescents and young adults reported that adolescent females, specifically African-American females, are disproportionally affected by sexually transmitted infections when compared to males. Mulye et al. (2009) reported adolescent mental health trends demonstrated females are more likely to report feelings of sadness or hopelessness for two weeks or more during the past year, with rates of sadness and hopelessness highest for Hispanic females. In 2007, adolescent females reported higher rates of attempted suicide (6. 9%) than males (2009).

Strategies to improve overall wellness, defined as a multidimensional approach to health (Myers & Sweeney, 2005) in adolescent females have not been well-established in research. The majority of research examines individual issues, often equating wellness

with one factor or outcome. Previous interventions for adolescents have examined wellness in delinquent females (Van Daalen, 2005; Hartwig & Myers, 2003), obesity prevention through diet and exercise (Flattum, Friend, & Neumark-Sztainer, 2009), psychosocial issues (Jaskiewicz, 2009), substance abuse (Lemstra et al., 2010) and risky sexual behavior (Chiaradonna, 2008; Commendador, 2007; Schmiedl, 2004). Comprehensive programs for overall wellness in adolescents have rarely been tested.

In previous studies, perceived self-efficacy has been reported to be the most important predictor of behavior change (Bandura, 1986, 1997; Stuifbergen et al, 2003). Perceived self-efficacy influences the degree of effort a person will invest in an activity (Bandura, 1986, 1997) and influences the ability to overcome barriers (Bandura, 2006). However, there are limited studies related to adolescents and self-efficacy; even fewer studies are related to adolescent females and perceived self-efficacy for wellness behaviors.

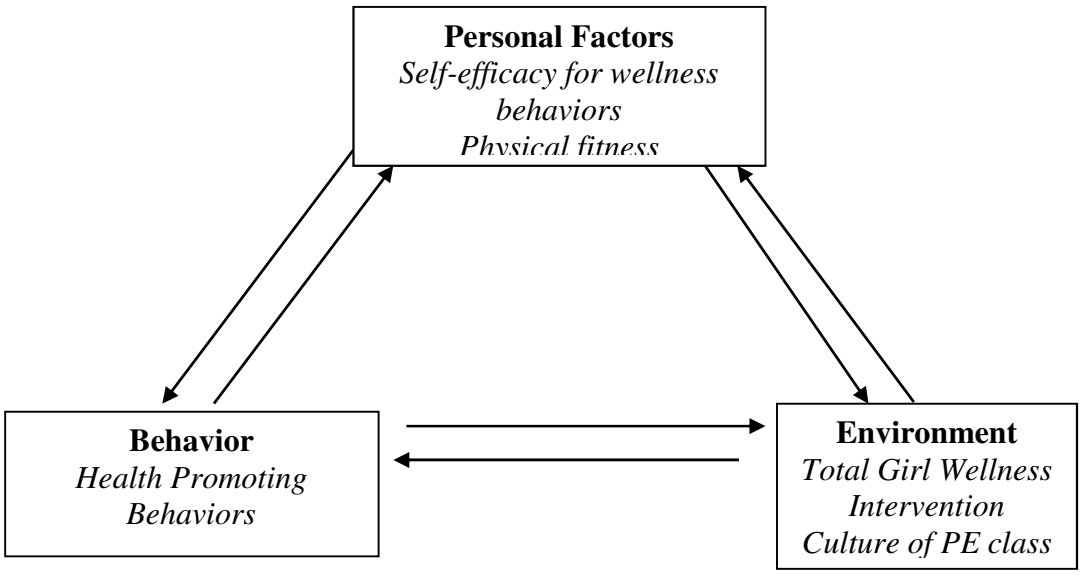
The paucity of existing research related to adolescent females, self-efficacy for wellness behaviors, and wellness habits signifies a gap in health promotion literature. Therefore, the purpose of this research study was to explore the effect of a comprehensive wellness intervention, titled *Total Girl Wellness Program*, on overall wellness, physical fitness, and self-efficacy for health promoting behaviors in adolescent females enrolled in physical education (PE) classes in high school. The results of this study add to the body of wellness literature related to adolescent females and lay the foundation for potential curriculum changes in physical education classes.

Theoretical Framework

Social Cognitive Theory (SCT) explains human functioning as, " a model of triadic reciprocality in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (Bandura, 1986, p. 18). The components of SCT operate simultaneously to develop self-efficacy. Self-efficacy is "concerned with people's belief in their capabilities to produce given attainments" (Bandura, 2006, p. 307). Self-efficacy beliefs are domain specific. To change behavior, a specific domain must be targeted. SCT is powerful when working with groups as it considers collective self-efficacy and the environment. When working with groups, it is essential to provide information that demonstrates the need for behavior changes; however, changes must be viewed as acceptable by peers to become a group norm. Members of the group must believe that they are capable and skilled at incorporating new ways of behaving (Bandura, 2006).

The SCT model (Figure 1) works well with female adolescents because it accommodates the rapid transitions of person and acknowledges the importance of peers and the social environment. For this study, person is represented by overall wellness, physical fitness, and self-efficacy for health promoting behaviors. Environment includes the Total Girl Wellness intervention and group culture of PE class. Behavior includes health promotion behaviors such as walking, dietary habits, and building healthy relationships.

Figure 1. *Social Cognitive Theory Concepts as Represented by Study Variable*



Research Hypotheses

The following hypotheses guided this study:

1. Among adolescent females enrolled in PE class, those completing a comprehensive wellness program will report higher total wellness scores than those in a control group not participating in the program.
2. Adolescent females completing a comprehensive wellness program as part of a PE class will demonstrate a greater improvement in fitness levels compared with a control group of adolescent females enrolled in PE.
3. Among students enrolled in PE class, higher self-efficacy for health promotion wellness behaviors will be reported by adolescent females completing a comprehensive wellness program compared to adolescent females in a control group.

Review of Literature

Multifaceted health care needs of adolescent females include obesity prevention (Brownell et al., 2009), physical fitness (Flattum et al., 2008; Harbaugh, et al., 2007; Stice, Presnell, & Shaw, 2005), psychosocial issues (Frydenberg & Lewis, 2004), risky behaviors (Harrison, Beebe, & Park, 2001), and reproductive health (Chiaradonna, 2008;Commendador, 2007; Silverman et al., 2004). A problem in any of these areas has potential to quickly compound, especially in girls who lack social connectedness or cohesion with family and friends. Patterns of behaviors adopted during this time period have long-term consequences that directly affect health and quality of life (MacKay & Duran, 2007). The effects of chronic diseases manifest in adulthood but the damage begins in childhood and adolescents. Behavior patterns established during this time period tend to transition into adulthood (Hallal, Victoria, Azevedo, & Wells, 2006). Available evidence demonstrated adult mortality and morbidity could be reduced by improving health behaviors in adolescents (Steiner et al., 1998).

The wellness movement, which began in the 1970s in an effort to de-emphasize the medical model of health that focused on sick, ill, or diseased individuals, targeted adults. Wellness requires proactive behaviors that promote health (Hartwig & Myers, 2003). Wellness habits and attitudes established during adolescence develop across a continuum throughout the lifespan (MacKay & Duran, 2007; Whitmore & Sweeney, 1992).

The prevalence of childhood and adolescent obesity in the United States is frequently referred to as an epidemic (Bell, Rogers, & Deitz, 2011; Shaya, Flores, Gbarayor, & Wang, 2008; Harbaugh et al., 2007). In 1980, only 6% of adolescents' ages

12–17 years were obese. As of 2007-2008 the rates have tripled and the percentage of obese adolescents reached 19%. The environment for many adolescents tends to encourage the consumption of inexpensive and high caloric food. This includes the school environment. In 2006, 98% of high schools sold soda, 78% sold cookies, and 69% sold potato chips. Schools often allow parents to bring fast food meals to their children at lunch, thus defeating the efforts of cafeterias that do provide healthy meals (Brownell, et al., 2009). This problem is compounded for students who live in low-income areas. Often times the only source for food is the local convenience store which has limited nutritious options. Adolescents from low-income communities are also at risk for experiencing nutritional deficiencies, being overweight, or becoming obese (McNeely & Blanchard, 2009).

Obese adolescent females achieve poorer social outcomes when compared to their normal weight peers. Overweight female adolescents were less likely to date and more likely to, become pregnant, drop out of school, and experience decreased income throughout their lifetime (Stice, Presnell, & Shaw, 2005; Mellin, Neumark-Sztainer, Story, Ireland, & Resnick, 2002). Obese adolescent females were also more likely to experience bullying from friends (McNeely & Blanchard, 2009; Stice, Presnell, & Shaw, 2005). Obese girls aged 13–14 years are four times more likely to suffer from low self-esteem than non-obese girls (McNeely & Blanchard, 2009; Mellin, et al., 2002) and have a 60% chance of developing a chronic complication caused by obesity (McNeely & Blanchard, 2009). Multiple school-based obesity prevention programs have been implemented with mixed reviews in terms of effectiveness. Brownell et al. (2009) report interventions implemented in the school environment have been more effective changing

behaviors such as television viewing and soda consumption and less successful at changing body mass indices.

The Centers for Disease Control and Prevention (CDC, 2011) recommends sixty minutes of daily physical activity for children ages 6–17 years and 150 minutes per week for adults 18 years and older. Many adolescents are not meeting this recommendation, but instead are spending the majority of their time in sedentary activities such as school and media consumption (McNeely & Blanchard, 2009). Data from the health profile report (Mulye, et al., 2009) indicated only 25% of high school females achieved the recommended amount of physical activity per day and 33% of high school females watched TV more than three hours a day. Physical activity decreased for females aged 18-24 years indicating only 19 % of females achieved the recommended amount of physical activity per day. Thus, females' activity decreases as they mature which increases the risk of obesity later in life. Enrollment in physical education declines between 8th and 11th grade (Beets & Pitetti, 2005).

In Texas, girls who participate in PE are not usually involved in extracurricular activities such as cheerleading, band, drill team, or athletics since these activities are substituted for PE credits (Texas Education Association, 2011). These girls do not identify with a team and have an increased risk of being socially isolated. Van Daalen (2005) researched why girls' participation in PE was dwindling. The results indicated the current model of PE was a "source of constant shaming regarding their athletic ability and eventually themselves" (p. 115). The PE model emphasized forced competition, degrading evaluation, sexuality, and size-related harassment by peers and instructors. As

competition and evaluations increased, self-esteem decreased. Exploring new models of PE was suggested.

In contrast, Tassitano et al. (2010) conducted a study analyzing whether participating in PE classes was associated with health-related behaviors among high school students. Results demonstrated students who attended at least two PE classes a week were 27% more likely to be physically active, 45% more likely to eat fruit on a daily basis, and 30% more likely to report less television viewing compared to students who did not attend PE. These findings suggested "enrollment in PE classes could play a role in promoting health-related behaviors among high school students" (p. 126).

Adolescents (98%) and young adults (96%) reported their overall health status as being excellent, very good, or good (Mulye, et al., 2009). However, research does not support their perception. The vast majority of adolescents reported a minimum standard of good health even though behaviors and health indices such as fitness suggest otherwise. This is an optimal time to capitalize on the overall positive perception of health in adolescents and provide comprehensive wellness instruction.

Method

The Institutional Review Board (IRB) from the University approved the study. The anticipated risks were minimal, but emotional distress due to the sensitive nature of the topics was possible. School counselors were aware of the intervention and were asked to support participants if needed during the process. All participants provided consent from parents and individual assent to participate in the study.

Design/Sample

A convenience sample of females ages 14-19 years enrolled in PE were drawn from two high schools in rural East Texas to participate in a randomized controlled trial testing the effect of a wellness intervention on overall wellness, physical fitness, and self-efficacy for health promoting behaviors. The schools were medium to large sized, ethnically diverse, and in primarily lower socioeconomic status communities (Table 1).

Table 1. *Demographic Comparison of Participating Schools*

Demographics	Control Group	Intervention Group
Number of Students	1115	927
African American	18%	22%
Caucasian	36%	43%
Hispanic	41%	30%
Economically Disadvantaged	71%	61%

Inclusion criteria included: female, age 14 -19, enrolled in PE, and able to read English. Exclusion criteria included inability to participate in physical fitness assessments and inability to read or understand English. Seven potential participants were unable to complete the fitness assessment due to physical challenges such as spina bifida, wheelchair bound, or pregnancy. Five students were able to speak but unable to read English.

Instruments

The Five Factor Wellness Inventory Teenage (5FWel-T) (Myers & Sweeney, 2005) is a 98-item questionnaire that identifies factors paramount to healthy living. Developed from extensive cross discipline research on quality of life, healthy living, and

longevity, the 5FWel is anchored to the theoretical model of Indivisible Model of Wellness (Myers & Sweeney, 2005). The adolescent or "teen" version is written at the sixth grade reading level. Four response choices range from '1' = strongly disagree to '4' = strongly agree. Items are summed to provide a total wellness score (α = .94). There are five second-order and 17 third-order factors included in the total wellness score. Reliability scores ranged from .90 - .94 on the second-order factors of creative self (α = .93) coping self (α = 92); social self (α = 94); essential self, (α = .91); and physical self, (α = .90).

Physical fitness data, including height, weight, body fat percentages, and hip to waist ratios, were collected. Physical fitness tests, including resting heart rate, blood pressure, 3-minute step test, push-ups, curl ups, and hamstring flexibility, were also assessed. The same digital scale (weight), stadiometer (height), Omron monitor (body fat percentage), and Assess Pro Duo-Flex (hamstring flexibility) were used for pre- and post-testing. Each instrument's accuracy was verified prior to each data collection session per established protocol. A physical fitness sum score was calculated by summing, body fat percentage, hip to waist ratio, resting heart rate, systolic and diastolic blood pressures, step test heart rate and subtracting number of pushups, number of curl ups, and flexibility inches. Lower scores are indicative of better physical fitness.

A modified version of Self-rated Abilities for Health Practices Scale (SRAHP) (Becker, Stuifbergen, Oh, & Hall, 1993) was used to measure self-efficacy. The original SRAHP contains 28 items, reflecting four subscales and each containing seven items. Each item has five response choices ranging from '0' = not at all to '4' = completely. Subscale scores range from zero to 28. All 28 items are summed to yield a total score that

ranges from zero to 112. Initial reliability estimates for three samples were reported: Exercise (α = .89-.92), Nutrition (α =.76-.81), Responsible Health Practices (α =.77-.88), and Psychological Well-being (α =.86-.90). Cronbach alpha for the total scale was .91-.94. With permission, two items appropriate for adolescent females were substituted for items directly related to chronic illness. Prior to use in the current study, a pilot study of the modified SRAHP was conducted. Exploratory factor analysis of the modified SRAHP-adolescent version (SRAHP-A) was performed in a sample of 291 adolescents. Exploratory factor analysis identified a four-factor solution as in the original SRAHP. However, items ranged from six items for the Nutrition subscale (α =.78), seven items for Exercise (α =.70) and Psychological Well-being (α = .78) subscales, to eight items for the Health Promotion subscale (α = .83). Cronbach's alpha for the total scale was .91.

Demographic data, collected as part of the 5FWEL-T include age, ethnicity, and grade in school. Additional questions related to hours per week of employment, living situation, and presences of a diagnosed medical condition were asked on the pre-test. Perceived achievement of wellness goals was assessed at post-test.

Procedures

The primary investigator (PI) sought and obtained support for the study in two different school districts. Meetings between the PE instructors and the PI occurred to solidify the process of recruitment and implementation. Each school had slightly different procedures for being on campus which influenced scheduling. Schools were randomly assigned to receive the intervention or serve as the control group.

Potential participants at both the intervention and control group sites were informed of the study by the researcher during scheduled PE time. Letters of

consent/assent were given to each eligible student to be taken home for parental consent. Students who did not return consent/assent forms were able to participate in the intervention but no data was collected. PE teachers received a $25 gift certificate as a token of appreciation at the completion of the study. Participants were eligible to win gift certificates of minimal amounts through a random drawing. Every participant received a small gift at completion of the intervention.

Research assistants, comprised of senior nursing students enrolled in a community health course, were trained in ethical standards of research and to perform physical assessment tests by an expert exercise physiologist. The exercise physiologist also designed the research protocol for the physical fitness tests. Research assistants demonstrated competency in the data collection protocol prior to study initiation. Nursing students electing to serve as research assistants received clinical credit for participating in the study.

The PI was present with research assistants at all times during data collection. Physical assessment stations were arranged in the schools' gyms for efficiency. Research assistants were assigned a fitness station to improve consistency in data collection. The administration and collection of data occurred during regularly scheduled PE class time. Physical fitness and physical assessments required two scheduled class periods to collect. The online 5FWel-T and SRAHP-A assessments were organized by the PI. Following the intervention data collection procedures were replicated for the post test requirements in the intervention group. Post-tests were conducted in the control group after 12 weeks, providing the same time span for pre- and post-testing as the intervention group.

Intervention.

The independent variable, titled the Total Girl Wellness Program, was developed to meet comprehensive health needs of adolescent females through sustained exposure to wellness education for eight consecutive weeks (Table 2). The program consists of eight 45-minute long, interactive education modules to be presented during class time. Modules cover wellness (one session), obesity prevention (two sessions), relationships (two sessions), and risky behaviors (3 sessions). Participants were provided with supplemental material for each session. A complete description of the program is provided in Chapter 3, Manuscript 2.

Table 2. *Description of Total Girl Wellness Program*

Module Title	Content	Week	Healthy People Objectives
Pre-Testing	Administer 5F-Wel, SRAHP, conduct physical fitness tests, and physical assessments	1 2	
Wellness Defined	The Indivisible Self – Wellness Model Wellness Goals Established	3	AH-1, AH-3
Obesity Prevention	Balanced Nutrition Walking as an Exercise	4 5	AH-2
Relationships	Developing and Maintaining Healthy Relationships with Friends, Family, and Dating Cyber Safety	6 7	AH-3 AH-5
Avoiding Risk	Distracted Driving Alcohol and Drugs Sexual Behavior	8 9 10	AH-7, AH-8
Post- Testing	Administer 5F-Wel-T, SRAHP Conduct physical fitness tests, and physical assessments	11 12	

Analysis

Data was analyzed using Predictive Analytic Software (PASW) version 18. Incomplete data was coded as missing and not included in the final analyses. Independent and paired samples t-tests with Bonferroni correction were performed to identify differences in mean scores of total wellness, fitness levels, and self-efficacy. All tests of significance were one tailed at an alpha of .05. After Bonferonni correction was applied, significance was established at .033. The demographic characteristics were analyzed using descriptive statistics and post-hoc chi-square.

Results

Instrument reliability was assessed for the current study. Cronbach alpha coefficient for internal consistency score for the 5FWel-T was .97. SRAHP-A subscale reliability scores were Nutrition (α =.81), Exercise (α =.87), Psychological Well-being (α = .76), and Health Promotion subscale (α = .82). Cronbach alpha for Total SRAHP-A was .92.

Sample

Of the accessible population (n=237) enrolled in PE at the participating schools, 153 (66%) returned assent/consent forms. The sample had a mean age of 16.0 (range 14-19), was ethnically diverse (41% Caucasian, 34% Hispanic, 24% African-American), unemployed (88%), did not participate in activities outside of school (57%), and did not have childcare responsibility (80%). There were no significant differences for age, race, employment, outside activities, or childcare responsibilities between the intervention and control groups. There was a significant difference in grade in school ($\chi^2 = 16.78;\ p < .01$) although there was no significant difference in age (m = 16 years). The control group (age

range 14-19) did not have any students in grade 12 and the intervention (age range 14-19) had 12 students classified as seniors.

Hypotheses

Hypothesis 1, which predicted higher total wellness scores in the intervention group, was partially supported. No significant differences existed between groups at baseline. Following the intervention, post-test scores (Table 3) indicated the total wellness score approached significance (t[64, 36] = 2.13*; p* =.039; d = .67). The large effect size indicates the possibility of a Type I error due to the conservative significance level. The essential-self subscale score was significantly higher in the intervention group (t[64, 36] = 2.67*; p* <.01; d = .84).

Table 3. *Differences in Wellness, Physical Fitness, and Self-efficacy for Health Promoting Behaviors Scores between Groups*

Measure	Total Girl Group (*n*=65)		Control Group (*n*=37)		t-test
	M	*SD*	*M*	*SD*	
Five Factor Wellness Inventory—Teen Version (5FWel-T)	77.88	7.90	71.03	12.01	2.13
	78.21	8.45	71.49	12.69	1.98
Creative self	71.45	9.66	68.20	10.90	0.95
	85.83	10.89	79.36	17.70	1.41
Coping self	81.13	8.43	72.01	12.80	
	69.72	14.96	59.86	14.26	2.67
Social self					**
					1.97
Essential self					
Physical self					
Physical Fitness Sum Score	501.87	91.85	498.4	70.76	0.19
Self-rated Abilities for Health Practices-Adolescent version (SRAHP-A)					
	65.79	18.08	53.60	24.54	2.00
Nutrition subscale	12.38	5.55	10.40	5.52	1.23

	14.34	6.44	11.10	7.82	1.60
Exercise subscale	21.69	5.80	17.05	6.74	
	17.38	4.80	14.05	7.27	2.60
Health Promotion subscale					**
					1.95
Psychological Well-being					

**p< .01

Hypothesis 2, which stated improved physical fitness levels will occur in the intervention group, was not supported. No significant differences existed between groups at baseline. Physical fitness sum scores did show slight improvement in both the intervention group and control groups over time but post-test scores (Table 3) were not significantly different between the groups.

Hypothesis 3, which predicted higher self-efficacy for health promoting wellness behaviors in adolescents receiving the *Total Girl Wellness Program*, was partially supported. No significant differences existed between groups at baseline. At post-test Health Promotion subscale scores (Table 3) for the intervention group were significantly higher (t [20,28] = 2.60; p =.01; d = .735). Self-efficacy scores were also evaluated using a paired sample t-tests (Table 4). Mean self-efficacy scores for the intervention group indicated significant decrease in Nutrition (t [25] = 3.68; p <.01; d = .45), Exercise (t [25] = 4.14; p <.01; d = .71), and Total Self-efficacy (t [25] = 3.28; p <.05; d = .62) scores for the intervention group. Control group scores were unchanged.

Table 4. *Paired Sample Scores for Self-efficacy for Health Promoting Behaviors among Adolescents Receiving Total Girl Wellness Program.*

Measure	Pre-test (n=26)		Post-test Scores (n=26)		*t-test*
	M	*SD*	*M*	*SD*	
Self-rated Abilities for Health Practices- Adolescent version (SRAHP-A)					

Nutrition subscale	73.42	14.57	63.58	16.99	3.28*
Exercise subscale	14.12	14.56	11.85	5.59	3.68**
Health Promotion subscale	17.50	5.76	13.35	5.91	
Psychological Well-being	23.15	5.10	21.19	5.76	4.14**
	18.65	3.97	17.19	4.60	1.63
					1.68

*p< .05; **p< .01

Discussion

Sample

The sample included a large number of adolescents from economically disadvantaged homes who represented the major racial and ethnic groups in the region. Participants did complain that a mixed race option was not available. Race categories were based on the 5 minimum required by the United States Census Bureau (2011); an option to select two races was not included in the forced response questionnaire. Several participants stated it made them angry because they were not just “one thing”. Adding an option to select more than one race will be incorporated in future demographic surveys.

While the sample was representative of the target population, missing data was a limitation and influenced study results. Although 153 students returned consent/assent forms, several participants were not present for post-test data collection or refused specific assessments such as weight or completion of the 5FWel-T. The large number of participants who did not complete all assessments contributed to underpowered and non-significant results. For example, if a student missed a scheduled testing or education event rescheduling proved to be very problematic. Student absences were surprisingly

frequent for multiple issues, including discipline problems, photo day, and unscheduled advisory periods, which shortened time for data collection. The missing data led to different numbers of students completing the various tests, resulting in small samples for individual analyses. The small sample size may contribute to the non-significant findings for the study hypotheses.

Online data collection was challenging due to technology problems. Similar issues occurred in both school districts. Internet passwords, required by each school district, were often forgotten or students were denied computer access for various reasons. Confidentiality issues precluded identification of students who did not have internet access. Neither district would allow the researcher internet access while on campus, affecting ability to review survey completion rates while collecting data. In addition, network connections were periodically lost. Participants exhibited a wide range of computer skills. Although each participant was provided written instructions to access the online surveys, several participants required individual assistance. Timing of data collection was also an issue. As the intervention took place over 12 weeks in the fall semester, the final data collection occurred the day after the students returned from a holiday break, potentially influencing responses and participation.

Wellness.

Though the Total Wellness Score approached significance, only the Essential-Self subscale of the 5FWel-T was significantly improved in the intervention group. This particular subscale addresses spirituality, gender identity, cultural identity, and self-care. Self-care assesses preventive safety habits, use of illegal drugs, tobacco and alcohol, and getting adequate sleep. The significant findings in this particular subscale may be related

to the fact that these topics are specifically addressed through the *Total Girl Wellness Program* curriculum. Questions related to cultural identification elicited strong emotional reactions from some participants for being forced to identify with one race.

Overall wellness may have been affected by lack of emphasis on individual wellness goals. Participants set wellness goals independently during the first module. These goals were not integrated into the rest of the program due to numbers of participants. In future studies, a component to strengthen goal setting and measuring goal obtainment will be included.

Lack of significant improvement in wellness scores may also have been influenced by the environment, as suggested by Social Cognitive Theory (Bandura, 1986). The PI agreed to present the *Total Girl Wellness Program* to all PE students regardless of whether they returned assents/consents or not. Students who were interested in the program were distracted and taunted by students who did not want to participate. The PI had to reprimand students for disruptive behavior which negatively influenced the environment. The presentations occurred in a mirrored gym. Students sat facing the mirrors; this was not an ideal environment to present information.

The 5FWEL-T instrument may not have been the best choice for this setting and population. Participants complained about the length, repetitive nature, and meaning of words. The 5FWEL-T is based on five components of wellness. The 'indivisible self' is at the heart of the model and this did not resonate with participants due to the abstract nature of the concept. It was difficult to keep the students on task with this online assessment. Using paper and pencil surveys may have increased completion rates.

Physical Fitness

Physical fitness did not improve in the current study. The lack of significant change may be due to the length, timing, duration, and intensity of exposure to the intervention, which are considered critical to program success (Wagner, Tubman, & Gil, 2004). It is possible a longer time between the pre- and post-test measures would have allowed time to observe a change in fitness levels. The timing for collecting physical assessment data was not ideal. Data was collected the day the students returned from a holiday break. Many participants refused to be weighed and measured for fear of gaining weight due to excessive holiday eating. Replication studies should consider extending the length of the program, scheduling more days for data collection, and accounting for holiday schedules when organizing the program.

Assessment of physical fitness scores included multiple measures. Though research assistants were trained and demonstrated competency prior to testing participants, it was difficult to maintain consistency in the 3-minute step test among research assistants. The 3-minute step test was also difficult for physically unfit or obese participants to execute. Future studies may consider a less complicated and more easily reproducible test.

Participants were very interested in results of their physical fitness tests, particularly body fat percentages and weight. However, due to time constraints exchange about the meaning of the results was limited. In future studies, the intervention will be modified to include time to address the meaning of fitness results.

Self-efficacy for Health Promoting Behaviors

The Health Promoting Behaviors subscale of the SRAHP-A demonstrated significant results when comparing the intervention and control groups post-test. All other self-efficacy subscales and total scores were non-significant. Results of the paired t-test, measuring self-efficacy over time, were unexpected as scores for the SRAHP total and Exercise and Nutrition subscales decreased in the intervention group over time. Bandura (1997) notes that perceived collective self-efficacy reflects a group's shared belief in ability to attain goals. The product of the group occurs through "interactive and coordinated dynamics of its members" (pg. 477). It is possible pre-test self-efficacy scores were higher due to the influence of the collective self-efficacy, which determined the group norms were healthy behaviors. Following intervention by the expert in health promotion, it is possible the collective self-efficacy was challenged, thus accounting for lower post-test scores among the intervention group participants.

Implications for Nurses

The wellness intervention was originally created and implemented by a school nurse for girls participating in drill team. This occurred through collaboration of the school nurse and the drill team director. This unlikely partnership formed the basis for the current *Total Girl Wellness Program*. School nurses should be open to unique partners when examining ways to improve overall health of the student body. School nurses are encouraged to develop and implement programs specific for their population of students. Interventions that are comprehensive, consistent, and prolonged have greater impact than knowledge only programs (Lemstra et al., 2008).

School nurses should consider establishing partnerships with area nursing schools both to introduce nursing students to the school setting and to conduct school-based research. Nursing students' capacities include the ability to develop and implement lesson plans related to health and wellness. The PE classroom provides a unique setting for nursing students to improve teaching and mentoring skills. Mentorships between nursing and high school students may be a viable and economic way to produce successful programs (Shaya, et al., 2008). In addition, this opportunity extends the reach of school nurses without adding to workload. Comprehensive school-based interventions grounded in research are needed to improve the health and wellness of adolescents. School nurses are integral to the success of this type of research.

Conclusion

Adolescent females are considered a vulnerable population due to multifaceted health care needs, a complex growth and development process, classification as infrequent health seekers, and status as medically underserved (Jaskiewicz, 2009). In spite of evidence to the contrary, adolescent females perceive their general health as good or very good. This suggests an opportunity to provide wellness education to this population. The Total Girl Wellness Program seeks to meet the total health care needs of the adolescent female. The program goals align with national goals set by Healthy People 2020 for adolescent health. This program seeks to fill a gap in research related to comprehensive wellness interventions designed for adolescent females and to add knowledge to the body of nursing research.

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Chapter Five

Summary of Research

This research is an initial step in a program of research related to wellness in adolescent females. The research is guided by Bandura's Social Cognitive Theory (SCT), which proposes a triadic reciprocation among personal factors, environment, and behavior. The interaction of these concepts contributes to individual and collective self-efficacy. The concept analysis reported in Chapter Two suggested that shame, a personal factor, is an important concept that likely influences wellness behaviors in this population. The environment is a key consideration when working with adolescent females as external environmental cues are internalized.

An intervention, titled *Total Girl Wellness Program,* was developed based on the tenets of SCT. Careful consideration was given to the influences of environment on shame and engagement in wellness behaviors. The *Total Girl Wellness Program*, which was reported in Chapter Three, includes discussions related to shame and draws upon the collective self-efficacy of the peer group to influence group norms.

The *Total Girl Wellness Program* was tested in a randomized controlled trial of 153 adolescent females as reported in Chapter Four. An immediate contribution to the body of knowledge as a result of this study was the development of The Self-Efficacy for Health Practices – Adolescent version. While hypotheses were not supported as predicted, several factors were identified that influenced results and will be addressed in future studies.

Next Steps in Program of Research

Future research will build upon the concept analysis, intervention, instrument development, and study findings. Additional testing of the SRAHP-A continues. Upon completion of data collection, a confirmatory factor analysis will be conducted and the findings published.

Refinement of *The Total Girl Wellness Program* will also continue. The control group is currently receiving the intervention as planned in the original research proposal. Identified weaknesses were corrected and the research protocol, data collection, goal setting, and presentation were refined. A shuttle-run replaced the 3-minute step test and tighter controls were put in place for the curl ups and push-ups. Additional days were scheduled for the online data collection and physical assessments were conducted more efficiently. Senior level nursing students are presenting the material to the participants in a classroom setting rather than the gym. Only the students who returned waivers are part of the program. Students who do not return waivers stay with the PE teacher and participate in regular PE activities. This change has resulted in fewer behavior distractions and participants are highly engaged. The nursing students are able to work individually with the participants on setting and review of personal wellness goals. Results from these studies may lead to additional modifications of the *Total Girl Wellness Program* that can be tested with other populations in future research.

A phenomenological study on shame as a barrier to wellness in adolescent females will likely yield significant contributions to the understanding of how shame impacts wellness in this population. The qualitative results will be used to develop an

instrument to effectively measure shame. This evidence will also help guide interventions in future interventional studies.

Conclusion

Adolescent females perceive themselves to be healthy but research suggests this population engages in unhealthy and risky behaviors. Health habits established during youth transition into adulthood and may contribute to chronic diseases later in life. The *Total Girl Wellness Program* was a successful initial project in this program of research in spite of a small sample size and data collection challenges that likely influenced results. Though the findings were not statistically significant for all hypotheses, the program was well received by participants and school personnel. An acceptable instrument to measure self-efficacy for health promoting behaviors was refined for use in adolescents and continues to undergo testing. The wellness intervention has been refined and is currently being tested with additional participants. Findings from this study suggest adolescent females can learn wellness skills that may impact future health behaviors and wellness.

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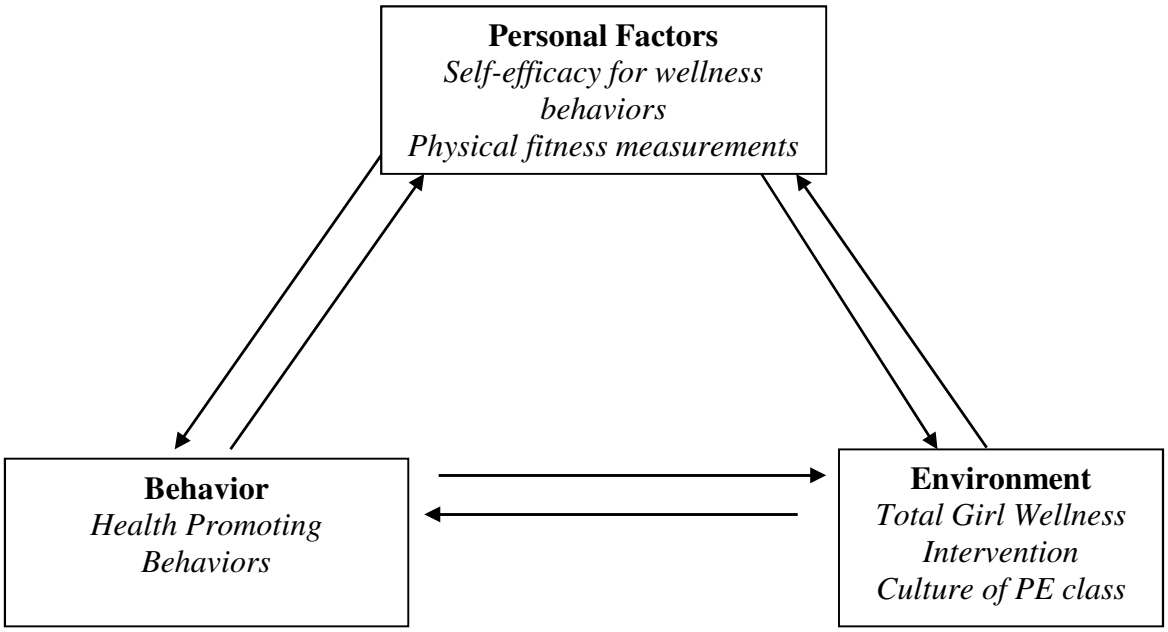
Appendix A Social Cognitive Model



Appendix B Letters of Support

Letters of Support from Chapel Hill ISD, received 8/12/11

To Whom It May Concern;

We are pleased to provide Mrs. Jenifer Chilton with access to our female students enrolled in physical education classes to conduct the study "The Effect of the Total Girl Wellness Program on the Wellness Behaviors of Adolescent Females". We look forward to working with Jenifer.

Sincerely,

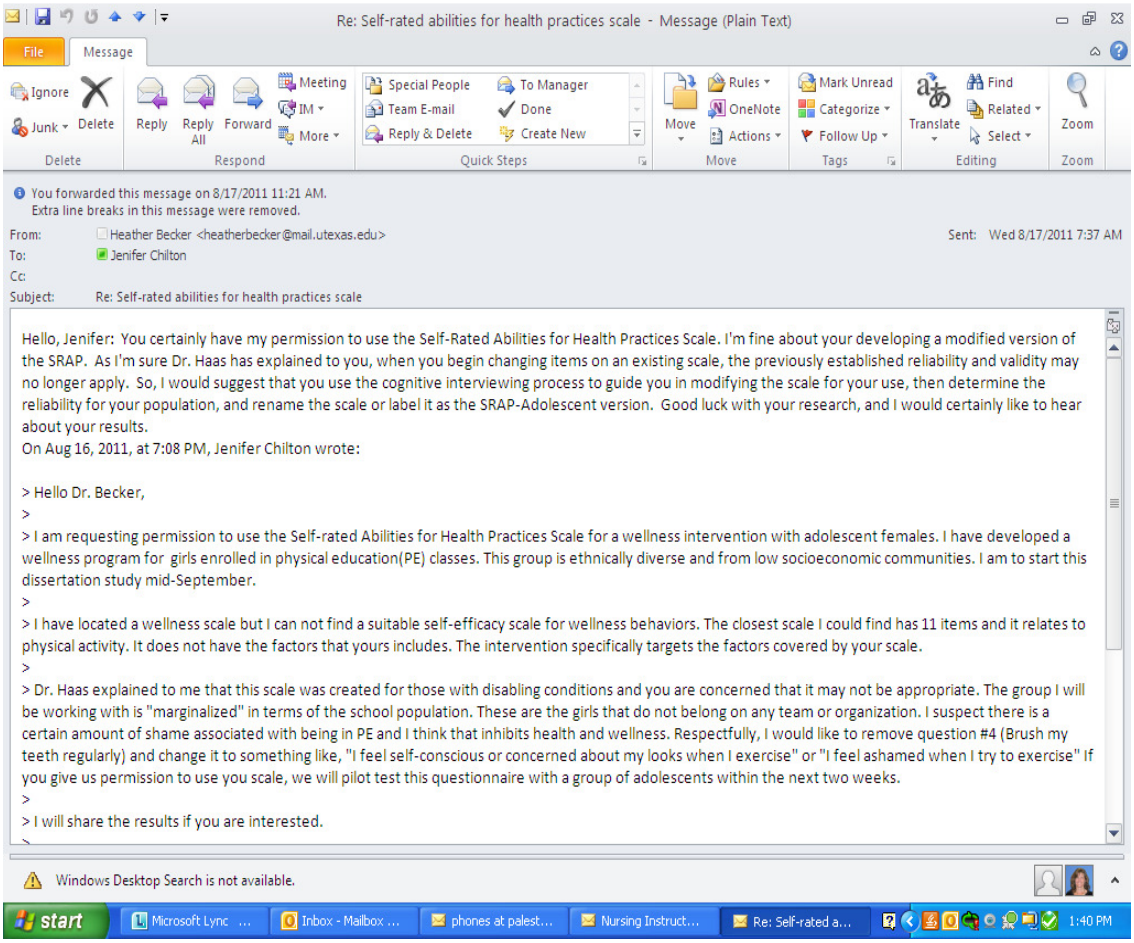
Linda Godwin
Chapel Hill High School
Head Volleyball
Girl's Athletic Director

Letter from Jacksonville ISD

From: Dr. Joe Wardell [jwardell@jisd.org]
Sent: Wednesday, July 27, 2011 3:43 PM
To: Jenifer Chilton
Subject:

Hope things are going well on your trip. When you have a moment give me a call so that we can discuss a few details and discuss what you would need in an approval letter.

Appendix C Permission to Modify the SRAHP



Re: Self-rated abilities for health practices scale - Message (Plain Text)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | IM | More | Special People | Team E-mail | Reply & Delete | To Manager | Done | Create New | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

You forwarded this message on 8/17/2011 11:21 AM.
Extra line breaks in this message were removed.

From: Heather Becker <heatherbecker@mail.utexas.edu>
Sent: Wed 8/17/2011 7:37 AM
To: Jenifer Chilton
Cc:
Subject: Re: Self-rated abilities for health practices scale

Hello, Jenifer: You certainly have my permission to use the Self-Rated Abilities for Health Practices Scale. I'm fine about your developing a modified version of the SRAP. As I'm sure Dr. Haas has explained to you, when you begin changing items on an existing scale, the previously established reliability and validity may no longer apply. So, I would suggest that you use the cognitive interviewing process to guide you in modifying the scale for your use, then determine the reliability for your population, and rename the scale or label it as the SRAP-Adolescent version. Good luck with your research, and I would certainly like to hear about your results.
On Aug 16, 2011, at 7:08 PM, Jenifer Chilton wrote:

> Hello Dr. Becker,
>
> I am requesting permission to use the Self-rated Abilities for Health Practices Scale for a wellness intervention with adolescent females. I have developed a wellness program for girls enrolled in physical education(PE) classes. This group is ethnically diverse and from low socioeconomic communities. I am to start this dissertation study mid-September.
>
> I have located a wellness scale but I can not find a suitable self-efficacy scale for wellness behaviors. The closest scale I could find has 11 items and it relates to physical activity. It does not have the factors that yours includes. The intervention specifically targets the factors covered by your scale.
>
> Dr. Haas explained to me that this scale was created for those with disabling conditions and you are concerned that it may not be appropriate. The group I will be working with is "marginalized" in terms of the school population. These are the girls that do not belong on any team or organization. I suspect there is a certain amount of shame associated with being in PE and I think that inhibits health and wellness. Respectfully, I would like to remove question #4 (Brush my teeth regularly) and change it to something like, "I feel self-conscious or concerned about my looks when I exercise" or "I feel ashamed when I try to exercise" If you give us permission to use you scale, we will pilot test this questionnaire with a group of adolescents within the next two weeks.
>
> I will share the results if you are interested.

Windows Desktop Search is not available.

start | Microsoft Lync ... | Inbox - Mailbox ... | phones at palest... | Nursing Instruct... | Re: Self-rated a... | 1:40 PM

Appendix D SRAHP Original

The following scale asks whether you are able to perform various health practices within the context of your lifestyle and any disabilities you may have. This includes any assistance you have available to you, such as an attendant to help with stretching exercises, for example. Read each statement and use the following scale to indicate how well you are able to do each of the health practices, not how often you actually do it.

0 = Not at all
1 = A little
2 = Somewhat
3 = Mostly
4 = Completely

1.	Find healthy foods that are within my budget	0 1 2 3 4
2.	Eat a balanced diet	0 1 2 3 4
3.	Figure out how much I should weight to be healthy	0 1 2 3 4
4.	Brush my teeth regularly	0 1 2 3 4
5.	Tell which foods are high in fiber content	0 1 2 3 4
6.	Figure out from labels what foods are good for me	0 1 2 3 4
7.	Drink as much water as I need to drink every day	0 1 2 3 4
8.	Figure out things I can do to help me relax	0 1 2 3 4
9.	Keep myself from feeling lonely	0 1 2 3 4
10.	Do things that make me feel good about myself	0 1 2 3 4
11.	Avoid being bored	0 1 2 3 4
12.	Talk to friend and family about the things that are bothering me	0 1 2 3 4
13.	Figure out how I respond to stress	0 1 2 3 4
14.	Change things in my life to reduce my stress	0 1 2 3 4
15.	Do exercises that are good for me	0 1 2 3 4
16.	Fit exercise into my regular routine	0 1 2 3 4
17.	Find ways to exercise that I enjoy	0 1 2 3 4
18.	Find accessible places for me to exercise in the community	0 1 2 3 4
19.	Know when to quit exercising	0 1 2 3 4
20.	Do stretching exercises	0 1 2 3 4
21.	Keep from getting hurt when I exercise	0 1 2 3 4
22.	Figure out where to get information on how to take care of my health	0 1 2 3 4
23.	Watch for negative changes in my body's condition (pressure sores, breathing problems)	0 1 2 3 4
24.	Recognize what symptoms should be reported to a doctor or nurse	0 1 2 3 4
25.	Use medication correctly.	0 1 2 3 4
26.	Find a doctor or nurse who gives me good advice about how to stay healthy	0 1 2 3 4
27.	Know my rights and stand up for myself effectively	0 1 2 3 4
28.	Get help from others when I need it	0 1 2 3 4

Range of Total Score = 0 - 112.
Higher scores indicate greater abilities for health practices
Subscales:
Nutrition: Items 1-7
Psychological Well Being: Items 8-14
Exercise: Items 15-21
Responsible Health Practices: Items 22-28
There are no reversed scored items.

Appendix E IRB Approval

The University of Texas at Tyler
Institutional Review Board

September 2, 2011

Dear Ms. Chilton:

Your request to conduct the study entitled *Effect of the Total Girl Wellness Program on Wellness Behaviors in Adolescent Females*, is approved as an expedited study, IRB #F2011-09 by The University of Texas at Tyler Institutional Review Board. This approval includes written informed parental consent and student assent for students under the age of 18, and student consent for students 18 years and over. Please use the attached IRB-stamped consent form for all signatures, and ensure that any research assistants or co-investigators have completed human protection training, and have forwarded their certificates to the IRB office (G. Duke).

Please review the UT Tyler IRB Principal Investigator Responsibilities, and acknowledge your understanding of these responsibilities and the following through return of this email to the IRB Chair within one week after receipt of this approval letter:

- This approval is for one year, as of the date of the approval letter
- Request for Continuing Review must be completed for projects extending past one year
- Prompt reporting to the UT Tyler IRB of any proposed changes to this research activity
- Prompt reporting to the UT Tyler IRB and academic department administration will be done of any unanticipated problems involving risks to subjects or others
- Suspension or termination of approval may be done if there is evidence of any serious or continuing noncompliance with Federal Regulations or any aberrations in original proposal.
- Any change in proposal procedures must be promptly reported to the IRB prior to implementing any changes except when necessary to eliminate apparent immediate hazards to the subject.

Best of luck in your research, and do not hesitate to contact me if you need any further assistance.

Sincerely,

Gloria Duke, PhD, RN

Gloria Duke, PhD, RN
Chair, UT Tyler IRB

Appendix F Informed Consent/Assent

THE UNIVERSITY OF TEXAS AT TYLER
Informed Consent to Participate in Research
Institutional Review Board # F2011-09

1. **Project Title**: Effect of the Total Girl Wellness Program on Wellness Behaviors in Adolescent Females

2. **Principal Investigator: Jenifer Chilton**

3. **Participant's Name: _____**

To the Participant:

You are invited to be part of a study at The University of Texas at Tyler (UT Tyler). This form tells you about the research study and what your role will be if you want to be in the study. This form explains possible risks of being in the study. After reading this letter you will understand the program and decide if you want to be in this study.

4. Description Of Project

The purpose of this study is to provide education about being healthy. We want to see if this program improves health and wellness.

5. Research Procedures

If you agree to be in this study, we will ask you to do the following things:

.

- Step up and down on an exercise bench for three minutes
- Stretch without bending your knees
- Do push-ups with your knees on the floor
- Do sit ups for one minute
- Allow a nursing student to measure your waist and hips
- Allow a nursing student to measure your height, weight, blood pressure, and body fat
- Take surveys on the computer at school that ask questions about your health
- Attend the program on wellness when you come to PE class

6. Side Effects/Risks

Nothing bad is expected from being in this program. Some topics are serious and may make you feel uncomfortable.

7. Potential Benefits

Being in this study may help improve your physical fitness and improve your overall wellness.

Understanding Of Participants

8. I have been given the chance to ask questions about this research study and the researcher has answered my questions.

9. If I sign this consent form I know it means:

- I am part of this study because I want to be.
- I do not have to be in this study. If I choose to not to be in the study it will not affect me.
- I can stop being a part of this study at any time. If I do stop being a part of the study, then nothing will happen to me.
- I will be told new information that may affect my decision to continue in the study.
- The study may be changed or stopped at any time by the researcher or by UT Tyler.
- I must agree in writing to changes in the study that may affect me.

10. I have been promised my name will not be in any reports or publications about this study.

11. I understand the information collected about me may be shared with:

- Groups giving money for this study
- Other researchers
- People at presentations or reading publications

My name or school name will not be shared.

12. I understand The UT Tyler Institutional Review Board (the group that makes sure research is done correctly and protects my safety) may look at the forms that have my name on them as part of their responsibilities. I also understand that my name and other information will be kept confidential.

13. I have been told about and understand the possible risks of being in this study.

14. I know I will not be paid to be in this study or for any product that may result from the research.

15. If I have questions about being in this project, I will contact the researcher:

Jenifer Chilton, MSN RN
903-721-2214
jchilton@uttyler.edu

or her faculty advisor:

Barbara Haas, PhD, RN
903-566-7021
bhaas@uttyler.edu

16. If I have any questions about being in a research study I will contact Dr. Gloria Duke, Chair of the IRB, at (903) 566-7023, gduke@uttyler.edu, or:

The University of Texas at Tyler
Office of Sponsored Research
3900 University Blvd
Tyler, TX 75799

I understand that I may contact Dr. Duke with questions about research-related injuries.

17. CONSENT/PERMISSION FOR PARTICIPATION IN THIS RESEARCH STUDY

I agree to let my child be in this study. The study researcher has my permission to enroll my daughter in this study. I have received a signed copy of this consent form.

_____
Parent or Legal Guardian Signature

18. Student Assent

I, _____, understand what this study is about and what I will be asked to do. I agree to be in this study and know I can stop any time I want to without any negative effects.

_____
Student Signature

20. I have discussed this project with the participant, using language that is understandable and appropriate. I believe that I have fully informed this participant of the nature of this study and its possible benefits and risks. I believe the participant understood this explanation.

_____
_____
Researcher/Principal Investigator/Witness (or designee)

Date

Appendix G Demographic Data Sheet

Participant ID#_____

Total Girl Wellness Program
Demographic Data Sheet

1. Date of birth: _____

2. What is the cultural background with which you most closely identify?

    a. Asian/ Pacific Islander
    b. African American
    c. Caucasian
    d. Hispanic/ Latina
    e. Native American

3. What grade are you in? _____

4. Who do you live with?_____

5. Do you work?
    a. No
    b. Yes, Number of hours: _____
    _____

6. Do you participate in any group activities outside of school?
    a. No
    b. Yes, Type of activities: _____
    _____

7. Do you have child care responsibilities?
    a. No
    b. Yes, Number and age of children under your care: _____
    _____

8. Do you feel you have made progress towards your wellness goals?
    a. No
    b. Yes

9. Do you have a medical condition that affects your ability to be well?
    a. No
    b. Yes

Appendix H Self-Rated Abilities for Health Practices Scale-A

Instructions

The following are different activities related to staying healthy. Read each statement and rate how well you can do each item using the scale below. Do not rate often you do the activity.

0 = Not at all
1 = A little
2 = Somewhat
3 = Mostly
4 = Completely

I am confident that I can:

1.	Find healthy foods at home or that I can afford	0 1 2 3 4
2.	Eat a balanced diet	0 1 2 3 4
3.	Figure out how much I should weigh to be healthy	0 1 2 3 4
4.	Exercise without being self-conscious about my looks	0 1 2 3 4
5.	Tell which foods are high in fiber	0 1 2 3 4
6.	Figure out from labels what foods are good for me	0 1 2 3 4
7.	Drink as much water as I need to drink every day	0 1 2 3 4
8.	Figure out things I can do to help me relax	0 1 2 3 4
9.	Keep myself from feeling lonely	0 1 2 3 4
10.	Do things that make me feel good about myself	0 1 2 3 4
11.	Avoid being bored	0 1 2 3 4
12.	Talk to friend and family about things that are bothering me	0 1 2 3 4
13.	Figure out how I respond to stress	0 1 2 3 4
14.	Change things in my life to reduce my stress	0 1 2 3 4
15.	Do exercises that are good for me	0 1 2 3 4
16.	Fit exercise into my regular routine	0 1 2 3 4
17.	Find ways to exercise that I enjoy	0 1 2 3 4
18.	Find places for me to exercise in the community	0 1 2 3 4
19.	Know when to quit exercising	0 1 2 3 4
20.	Do stretching exercises	0 1 2 3 4
21.	Keep from getting hurt when I exercise	0 1 2 3 4
22.	Figure out where to get information on how to take care of my health	0 1 2 3 4
23.	Watch for negative changes in my body	0 1 2 3 4
24.	Recognize symptoms that should be reported to a doctor or nurse	0 1 2 3 4
25.	Avoid participating in risky behaviors	0 1 2 3 4
26.	Talk to doctor or nurse when I need advice on healthy living	0 1 2 3 4
27.	Stand up for myself	0 1 2 3 4
28.	Get help from others when I need it	0 1 2 3 4

Appendix I Five Factor Wellness Inventory Teen

The purpose of this inventory is to help you make healthy lifestyle choices. The items are statements that describe you. Answer each item in a way that is true for you **most of the time.**

Think about how you most often see yourself, feel or behave. Answer all the items. Do not
spend too much time on any one item. Your honest answers will make your scores more useful.

Mark only one answer for each item using this scale:

- **Strongly Agree** If it is true for you most or all of the time
- **Agree** If it is true for you some of the time
- **Disagree** If it is usually not true for you
- **Strongly Disagree** If it is almost or never true for you

EXAMPLE:
I like meeting new people.
☐A ☒B ☐C ☐D
A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree

1. I have a leisure activity in which I lose myself and feel like time stands still.
☐A ☐B ☐C ☐D
2. I am satisfied with how I cope with stress.
☐A ☐B ☐C ☐D
3. I eat a healthy diet.
☐A ☐B ☐C ☐D
4. I can often laugh even when working hard.
☐A ☐B ☐C ☐D
5. I look forward to the future.
☐A ☐B ☐C ☐D
6. I can control my anger.
☐A ☐B ☐C ☐D
7. When I have a problem, I study my choices before I act.
☐A ☐B ☐C ☐D

8. I do not drink alcohol
☐A ☐B ☐C ☐D
9. I get exercise at least three times a week.
☐A ☐B ☐C ☐D
10. I value myself as a unique person.
☐A ☐B ☐C ☐D
11. I have friends who would do most anything for me if I were in need.
☐A ☐B ☐C ☐D
12. I feel like I need to keep other people happy.
☐A ☐B ☐C ☐D
13. I can show both my good and bad feelings when I need to.
☐A ☐B ☐C ☐D
14. I like to solve problems.
☐A ☐B ☐C ☐D
15. I do not use tobacco.
☐A ☐B ☐C ☐D
16. My culture improves the quality of my life.
☐A ☐B ☐C ☐D
17. Most of the time I get enough sleep.
☐A ☐B ☐C ☐D
18. I am able to manage my stress.
☐A ☐B ☐C ☐D
19. I use a seat belt when riding in a car.
☐A ☐B ☐C ☐D
20. I can take charge and manage things when necessary.
☐A ☐B ☐C ☐D
21. I can laugh at myself.
☐A ☐B ☐C ☐D
22. Being male/female has a positive effect on my life.
☐A ☐B ☐C ☐D
23. My free time activities are an important part of my life.
☐A ☐B ☐C ☐D
24. My work or schoolwork allows me to use my abilities and skills.
☐A ☐B ☐C ☐D
25. I have relatives who would help me if I needed it.
☐A ☐B ☐C ☐D
26. I have at least one close relationship that is secure and lasting.
☐A ☐B ☐C ☐D
27. I look for ways to improve my thinking and learning.
☐A ☐B ☐C ☐D

28. I get disappointed because what I want does not happen.
☐A ☐B ☐C ☐D
29. I look forward to the work or schoolwork I do each day.
☐A ☐B ☐C ☐D
30. I usually reach the goals I set for myself.
☐A ☐B ☐C ☐D
31. I have sources of support with respect to my race, color, or culture.
☐A ☐B ☐C ☐D
32. I can find creative solutions to hard problems.
☐A ☐B ☐C ☐D
33. I think I am an active person.
☐A ☐B ☐C ☐D
34. I have free time activities that are satisfying to me.
☐A ☐B ☐C ☐D
35. Prayer is a regular part of my life.
☐A ☐B ☐C ☐D
36. I accept the way I look even though I am not perfect.
☐A ☐B ☐C ☐D
37. I am active in a religious group.
☐A ☐B ☐C ☐D
38. I am usually aware of how I feel about things.
☐A ☐B ☐C ☐D
39. I often jump to conclusions that turn out to be untrue.
☐A ☐B ☐C ☐D
40. I know I can get a suitable job when I need one.
☐A ☐B ☐C ☐D
41. I make time for leisure activities that I like.
☐A ☐B ☐C ☐D
42. Others say I have a good sense of humor.
☐A ☐B ☐C ☐D
43. I make it a point to seek the views of others in a variety of ways.
☐A ☐B ☐C ☐D
44. I believe that I am a worthwhile person.
☐A ☐B ☐C ☐D
45. I feel support from others for being a male/female.
☐A ☐B ☐C ☐D
46. It is important for me to be liked or loved by everyone I meet
. ☐A ☐B ☐C ☐D

47. I have at least one person who is interested in my growth and wellbeing.
☐A ☐B ☐C ☐D
48. I am good at solving problems.
☐A ☐B ☐C ☐D
49. I can start and keep relationships that are satisfying to me.
☐A ☐B ☐C ☐D
50. I can cope with the thoughts that cause me stress.
☐A ☐B ☐C ☐D
51. My spiritual beliefs help me get through the day.
☐A ☐B ☐C ☐D
52. I like being a male/female.
☐A ☐B ☐C ☐D
53. I am physically active most of the time.
☐A ☐B ☐C ☐D
54. I use humor to gain new insights on my problems.
☐A ☐B ☐C ☐D
55. I can put my work or schoolwork aside for leisure without feeling bad.
☐A ☐B ☐C ☐D
56. I have to do all things well to feel worthwhile.
☐A ☐B ☐C ☐D
57. I like others of my gender.
☐A ☐B ☐C ☐D
58. I am appreciated by those around me at work or school.
☐A ☐B ☐C ☐D
59. I plan ahead to achieve the goals in my life.
☐A ☐B ☐C ☐D
60. I like myself even though I am not perfect.
☐A ☐B ☐C ☐D
61. I am happy with my free time activities.
☐A ☐B ☐C ☐D
62. I do some form of stretching activity at least three times a week.
☐A ☐B ☐C ☐D
63. I eat at least three meals a day including breakfast.
☐A ☐B ☐C ☐D
64. I do not use illegal drugs.
☐A ☐B ☐C ☐D
65. I believe in God or a spiritual being.
☐A ☐B ☐C ☐D

66. I can experience feel a lot of emotions, both good and bad.
☐A ☐B ☐C ☐D
67. I view change as an opportunity for growth.
☐A ☐B ☐C ☐D
68. I eat fruits, vegetables and whole grains daily.
☐A ☐B ☐C ☐D
69. My spiritual growth is important to me.
☐A ☐B ☐C ☐D
70. When I need information, I have friends whom I can ask for help.
☐A ☐B ☐C ☐D
71. I am proud of my cultural heritage.
☐A ☐B ☐C ☐D
72. It is important for me to be physically fit.
☐A ☐B ☐C ☐D
73. I have at least one person in whom I can confide my thoughts and feelings.
☐A ☐B ☐C ☐D
74. I am satisfied with my life.
☐A ☐B ☐C ☐D
75. I have enough money to do the things I need to do.
☐A ☐B ☐C ☐D
76. I feel safe in my home.
☐A ☐B ☐C ☐D
77. I feel safe in my workplace or school.
☐A ☐B ☐C ☐D
78. I feel safe in my neighborhood.
☐A ☐B ☐C ☐D
79. I feel safe in my daily life.
☐A ☐B ☐C ☐D
80. I am afraid that I or my family will be hurt by terrorists.
☐A ☐B ☐C ☐D
81. I have at least one person who helps me feel hopeful during good times and bad.
☐A ☐B ☐C ☐D
82. At home we can solve problems and not fight about it.
☐A ☐B ☐C ☐D
83. I feel I can succeed at school without cheating.
☐A ☐B ☐C ☐D
84. I know my family loves me.
☐A ☐B ☐C ☐D

85. My government helps me be more well.
☐A ☐B ☐C ☐D
86. My education has helped me be more well.
☐A ☐B ☐C ☐D
87. My religion helps my wellbeing.
☐A ☐B ☐C ☐D
88. I watch less than 2 hours of TV each day.
☐A ☐B ☐C ☐D
89. I am happy with my cultural background.
☐A ☐B ☐C ☐D
90. Most of the time I can handle any work or schoolwork expected of me.
☐A ☐B ☐C ☐D
91. Changes in life are normal.
☐A ☐B ☐C ☐D
92. I am liked by my peers.
☐A ☐B ☐C ☐D
93. World peace is important to my wellbeing.
☐A ☐B ☐C ☐D
94. Other cultures add to my wellbeing.
☐A ☐B ☐C ☐D
95. I look forward to growing older.
☐A ☐B ☐C ☐D
96. I like to plan the changes in my life.
☐A ☐B ☐C ☐D
97. I eat lots of vitamins and fiber.
☐A ☐B ☐C ☐D

Appendix J Physical Assessment Data Sheet

Total Girl Wellness Program Participant Data Sheet (Pre and Post Test)

Name:_____

Height:_____

Weight:_____

Body Fat Percentage:_____

Circumference:_____

Blood Pressure:_____

3 Minute Step Test:_____

Push Ups:_____

Curl Ups:_____

Sit & Reach:_____

Heat Rate:_____

Appendix K Journal Guidelines for *The Journal of School Nursing*

Manuscript Submission Guidelines

The Journal of School Nursing (JOSN) is the official journal of the National Association of School Nurses. It is a peer-reviewed journal whose purpose is to provide a forum for advancing the specialty of school nursing, contributing to knowledge development about school nursing practice, and promoting the professional growth of school nurses thus ultimately advancing the health of school children. See the *Aims and Scope* link for a description of types of manuscripts sought. Manuscripts from all disciplines related to child, school, and community health are welcome.

Because JOSN seeks manuscripts that bring new perspectives and innovations to school nursing, we urge authors to review previously published articles related to their topic in order to (1) build on the comprehensive body of published literature on the subject and (2) ensure the uniqueness of their own article's contribution.

Types of Articles

Evidence Based Practice or Policy Reports

Evidence based practice reports of change projects or resulting policies and projects assessing program quality should include an introduction reporting a clear statement of the issue and purpose of the project. The introduction should also include a synthesis of the evidence base guiding the program or policy. The methods section should include ethical considerations, and setting description. A description of the measures and the implementation should be included as well as the analysis used in evaluation. Results can include outcomes, guidelines derived for the program as well as lessons learned. Implications for school nursing and school health services are expected.

Commentaries

Commentaries are shorter (no more than ten pages including references) manuscripts addressing emerging issues in school health or previous publications in *The JOSN*. Commentaries are scholarly manuscripts that include references and call attention to issues for school nursing and school health community.

Integrative Literature Reviews

Integrative literature reviews should provide a comprehensive review of the literature and synthesize findings related to specific problems or school health programs. School nursing and school health services implications drawn from the reviews strengthen the relevance for *The JOSN.*

Original Research Reports
Original research reports include pilot, preliminary and feasibility studies as well as studies of all designs including epidemiological studies and clinical trials. Original research reports can address specific clinical problems that affect individuals in the school community or the school population. The implications for school nursing and school health services delivery should be identified.

Referenced Editorials
Editorials address current issues important to the health of school children and school nursing practice. The purpose of editorials is to stimulate scholarly thought among school nurses and other school health practitioners and researchers.

Letters to the Editor
Letters to the Editor provide a forum for commenting on articles published in *The JOSN* and topics of general interest in school health care. The length should not exceed 800 words of text with a minimal number of references. One table or figure may be included, if necessary. Any comments regarding a specific article must include the title, author(s), and date of publication. Letters that contain questions or critique of a previously published paper will be forwarded to the author(s) of that article for a reply. The sharing of ideas, experiences, opinions, and alternative views is encouraged. The Executive Editor of *The Journal* reserves the right to accept, reject, or excerpt letters for clarity and appropriateness of content, and to accommodate space requirements. Submit Letters to the Editor to **http://mc.manuscriptcentral.com/josn.**

Manuscript Format:
Manuscripts should be prepared in accordance with the guidelines set forth in the *Publication Manual of the American Psychological Association*, 6th edition. Manuscripts, including abstracts (150 words) and references, should be double-spaced, using 12-point Times New Roman font, left justified margins, and one-inch margins on all sides. No identifying information about the author(s) should be in the body of the paper, abstract, or figures. Manuscripts should not exceed 20 pages, excluding abstract, references, tables, and figures. Tables should be typed one to a page with any notes/legends typed on the same page. Label each figure with its number and legend. All tables, figures, graphs, and drawings should follow the reference list and not placed in the body of the manuscript.

Manuscript Submission:

Manuscripts should be submitted electronically at http://mc.manuscriptcentral.com/josn. Authors will be required to set up an online account on the SAGETRACK system, powered by ScholarOne.
Log in or click the "Create Account" option if you are a first-time user of Manuscript Central.
After clicking on "Create Account," enter your name and email information and click "Next." Your email information is very important.
Enter your institution and address information as prompted, then click "Next."
Enter a user ID and password of your choice (we recommend using your email address as your user ID) and then select your area of expertise. Click "Finish" when done.
Note: You will need your cover letter, title page, manuscript, and figures in separate files to submit. It is helpful to create these individual files before beginning the submission process.
Log in and select "Author Center."
After you have logged in, click the "Submit a Manuscript" link on the Author Center screen.
Enter data and answer questions as prompted.
Click "Save and Continue" on each screen to save your work and advance to the next screen.
You will be prompted to upload your manuscript and title page files.
Click on the "Browse" button and locate the file on your computer.
Select the description of the file in the drop-down menu next to the Browse button.
When you have selected all files you wish to upload, click the "Upload" button.
Review your submission (in both PDF and HTML formats). Click the "Submit" button when you are done reviewing.
You may stop a submission at any phase and save it to complete later. After submission, you will receive a confirmation via e-mail. You can log on to Manuscript Central at any time to check the status of your manuscript. The Editor will inform you via e-mail once a decision has been made.
Submitted manuscripts will be reviewed by the Editor for adherence to page limitations and content appropriate for the journal. Manuscripts will then be sent out anonymously for peer review. Obtaining permission for any quoted or reprinted material that requires permission is the responsibility of the author and should be submitted with the manuscript as supplementary files. Submission of a manuscript implies commitment to publish in the journal. The Editor bases the decision to publish on the reviewers' recommendations. Accepted manuscripts will be returned for revisions prior to sending to the publisher for typesetting. Authors will receive proofs for approval via email. Authors assume final responsibility for the content of the manuscript, including the edited copy. The Journal reserves the right to edit all manuscripts to its style and space requirements. When the manuscript is published, authors will receive a complimentary copy of the issue.
Email questions to the Editor.
The Journal of School Nursing

Julia Muennich Cowell, PhD, RNC, FAAN
Executive Editor
jcowell@nasn.org

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BIOGRAPHICAL SKETCH

NAME Jenifer M. Chilton	POSITION TITLE Instructor
COMMONS USER NAME (credential, e.g., agency login) JCHILTON	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Texas at Austin	B.S.E.	08/1987	Secondary Education
University of Kansas	B.S.N	05/1991	Nursing
University of Texas at Tyler	MSN	05/08	Nursing/Education
University of Texas at Tyler	PhD	05/12	Nursing

A. Personal Statement

My long term research interests involve health promotion and wellness. I view myself as a health promotion specialist. I received my first degree in Secondary Education with a major in biology and a minor in health. I pursued my passion of biology and health by attending nursing school. I graduated as a member of Sigma Theta Tau. My work eventually led to school nursing where I became an expert at creating and implementing health promotion activities for the district and community. I developed the Family Walk Night which won an award of Excellence and an award of Outstanding from the Texas Department of Health and Human Services in 2005 and 2006. My philosophy of nursing attracted professors from the University of Texas at Tyler and I became a clinical preceptor for nursing students enrolled in Community Health. My goal is to create and implement interventions that improve the health of populations.

B. Positions and Honors. List in chronological order all non-degree training, including postdoctoral research training, all employment after college, and any military service. Clinicians should include information on internship, residency and specialty board certification (actual and anticipated with dates) in addition to other information requested. State the Activity/Occupation and include beginning/end dates, field, name of institution/company, and the name of your supervisor/employer.

B. Positions and Honors

ACTIVITY/ OCCUPATION	BEGINNING DATE	ENDING DATE	FIELD	INSTITUTION /COMPANY	SUPERVISOR /EMPLOYER
Nurse	1/92	6/92	Med Surg	St. Mary's Hospital	
Business Owner	1/93	Present	Self-Employed	GAC Resources	Self
School Nurse	8/01	7/06	School Nursing	Jacksonville ISD	Stuart Bird
Instructor	7/06	Present	Nursing Education	The University of Texas at Tyler	Pam Martin

Academic and Professional Honors.

Texas Awards of Excellence – Excellence for Family Walk Night, 2006
Texas Awards of Excellence – Outstanding for Family Walk Night, 2007
The University of Texas at Tyler, Scholastic Scholarship, 2007
Award of Excellence, Sigma Theta Tau, 2007
Sigma Theta Tau Research Award, 2008
Outstanding Graduate Student, 2008
Top 10% Poster Presentation at SNRS, 2010
Award of Excellence in Teaching, 2010
Collaborative Initiative Research Award, 2011

Memberships in professional societies:

Sigma Theta Tau
PhI Kappa Phi

C. Publications (in chronological order).

Research papers:
Deal, B., Alfred, D., Fountain R., Ford, T, & **Chilton, J**. (2010). Educational Opportunities: A Nursing School Model for Medical Special Needs Sheltering, *Nurse Educator, 35*(3),122-126.